The University of Chicago

THE EXTENSION PROGRAM OF THE UNIVERSITY OF CHICAGO

A DISSERTATION SUBMITTED TO THE FACULTY OF THE DIVISION OF THE SOCIAL SCIENCES IN CANDIDACY FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

DEPARTMENT OF EDUCATION
1932

By
CLEM OREN THOMPSON

Private Edition, Distributed by
THE UNIVERSITY OF CHICAGO LIBRARIES
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FOREWORD

This study was undertaken in connection with the Survey of the University of Chicago. It will be obvious to the reader that it is not the result of one person's efforts and that it would have been impossible without the cooperation of others.

The author desires to express his appreciation to the following persons: to the executive officers of the four extension organizations--Mr. H. F. Mallory, Secretary of the Home-Study Department, Professor C. F. Huth, Dean of University College, Miss Georgia L. Chamberlin, Executive Secretary of The American Institute of Sacred Literature, and Mr. Allen Miller, Director of the Radio Department--and the members of their staffs for the splendid cooperation given him in collecting the data for the respective organizations; to the staff of the Registrar's office for generous assistance and permission to examine the permanent records; to the Comptroller and his staff for the data on the expenditures of the extension organizations; and to the members of the extension staffs and students who filled out the questionnaires.

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TABLE OF CONTENTS

Page

FOREWORD ii
LIST OF TABLES v
LIST OF FIGURES. xi
Chapter
I. PROBLEM AND METHOD OF STUDY. 1
Statement of the Problem
Sources of Data and Method of Study
II. MANAGEMENT OF THE EXTENSION PROGRAM. 5
Control
Administration of the Program
Facilities for Offering the Program
Admission Requirements
The Announcements
III. EXTENSION ACTIVITIES 18
Correspondence-Study Work
Class-Study Work
Public Lectures
Courses and Materials on Religious and Biblical Themes
Radio Programs
IV. STUDENT PERSONNEL. 36
Sex and Age
Citizenship Status
Geographical Distribution
Occupational Status
Ability of Extension Students
Previous Training
Registrations
Mortality
Radio Audience
V. USES MADE OF EXTENSION SERVICES. 79
Extension Services Used for Credit
Vocational Uses
Cultural Uses of Extension Services
Solution of Religious Difficulties
VI. EXTENSION STAFF. 88
Sources from Which Staff Members Are Secured

Chapter Page

Qualifications of Staff Members
Proportion of Work Done by Teachers of Each Group with Various Degrees and Ranks

VII. SERVICE LOADS AND SCHOLARLY PRODUCTIVITY OF EXTENSION STAFF MEMBERS 101
Service Loads
Scholarly Productivity

VIII. RELATIVE QUALITY OF STUDENTS' WORK 123
Results of Other Studies
Opinions of Extension Teachers
Grades Issued on Extension and Residence Work

IX. COST OF THE EXTENSION PROGRAM. 134
Financing the Program
Service-Load Costs
Proposed Fees

X. CONCLUSIONS. 151

BIBLIOGRAPHY 163

APPENDIX 166

A. Questionnaire Sent to Home-Study Teachers 166

B. Questionnaire Sent to Teachers in University College. . 170

C. Number of Estimates Made on Each Type of Activity Performed and the Mean Value of Each Type of Activity. 172

D. University College Supplementary Information Blank. . . 175

E. Determination of the Point Values of the Graduate Letter Grades 180

F. Supplementary Tables. 183

G. Form of Card Used in Collecting Data on Scholarly Productivity. 183

H. Some Suggested Problems 186

LIST OF TABLES

Table		Page
I.	Distribution by Levels of College Courses Offered in Home-Study	22
II.	Departmental Distribution of College Courses Offered in Home-Study during the Ten-Year Period from 1919-20 to 1928-29	25
III.	Number of Courses Offered in Home-Study in 1919-20 and Number of New Courses Offered Each Succeeding Year by Each Department	27
IV.	Distribution, According to Levels, of Courses Offered in University College	28
V.	Distribution by Departments of Courses Offered in University College during the Ten-Year Period from 1919-20 to 1928-29	30
VI.	Number of Courses Offered by Each Department in University College in 1919-20 and Number of New Courses Offered Each Succeeding Year.	32
VII.	Themes and Number of Lectures Given on Each in the Public Lecture Program from February, 1926, to June, 1930	33
VIII.	Distribution, According to Age-Groups, of Men and Women Students Registered in Home-Study and in University College.	36
IX.	Distribution of the Registrations by Men and Women in the Home-Study Department from June 20, 1929, to March 21, 1930, on the Basis of Citizenship Status	39
X.	Geographical Distribution, in Percentages, of the Correspondence-Study Students and Resident Students, Including Those in University College, during the Ten Years, 1919-20 to 1928-29	41
XI.	Distribution by Mile-Groups of Correspondence-Study Students and Resident Students, Including Those in University College, during the Year, 1928-29	44
XII.	Distribution of Class-Study Students in the Autumn and Winter Quarters of 1929-30 According to the Distance They Lived and Worked from the College Classrooms.	46

Table | Page

XIII. Percentage Distribution According to Occupational Groups of 3,297 Correspondence-Study Students and 2,315 Class-Study Students 48

XIV. Distribution of Correspondence-Study and Class-Study Students on the Basis of High-School Graduation 53

XV. Distribution of Class-Study Students Who Were High-School Graduates According to Kind of High School from Which They Were Graduated. 54

XVI. Distribution of Class-Study Students Who Were High-School Graduates According to the Size of High School from Which They Were Graduated. 54

XVII. Distribution of Correspondence-Study and Class-Study Students Who Had Attended a Higher Institution of Learning According to the Number of Years Spent in a Higher School. 56

XVIII. Distribution of 894 Correspondence-Study Students and of 1,900 Class-Study Students According to Degrees Received. 57

XIX. Number of Students Who Matriculated through Home-Study Department and through University College in Each of the Ten Years, 1919-20 to 1928-29, and the Percentage Each Number Is of the Total Number Matriculating in the University Each Year 58

XX. Distribution of Class-Study Students on the Various Levels during the Ten Years, 1919-20 to 1928-29. 61

XXI. Registration in University College by Quarters during the Years, 1919-20 to 1928-29, and the Percentage the Spring Enrolment Is of the Winter Enrolment 61

XXII. Number of Registrations in Home-Study in Sub-College Courses during the Ten Years, 1919-20 to 1928-29, by Departments 66

XXIII. Attendance at the Public Lectures 68

XXIV. Number of Course Registrations in Home-Study, Number and Percentage Completed, Number of Examinations Taken, and Percentage the Number of Examinations Is of the Number of Course Registrations Completed and of the Total Number of Registrations. 70

XXV. Number of Registrations in Sub-College Courses and the Number and Percentage Completed Each Year from 1919-20 to 1928-29 71

Table | Page

XXVI. Distribution, According to the Number of Lessons Completed, of Correspondence-Study Students Who Dropped Their Work during Each Quarter in the Year, March 20, 1929, to March 21, 1930 73

XXVII. Number of Registrations in the Home-Study Department for the Completion of Unfinished Residence Courses, Number of Examinations Taken, and the Percentage the Examinations Are of the Registrations for the Ten Years, 1919-20 to 1928-29. . . 73

XXVIII. Distribution of Class-Study Students According to the Number of "Incompletes" Recorded. 74

XXIX. Distribution of 498 Registrations in Home-Study According to the Number of Months from the Time of Enrolling in a Course to Completing It and the Number and Percentage Taking the Final Examination 76

XXX. Percentage Distribution of Correspondence-Study and Class-Study Students on the Basis of the Number of Quarters from Matriculating to Securing a Bachelor's Degree 77

XXXI. Distribution of Class-Study Students on the Basis of Whether or Not Credit Is Desired 80

XXXII. Number and Percentage of Class-Study Students Who Expressed a Desire for Each Degree. 81

XXXIII. Distribution, on the Basis of Degree Desired, of the Class-Study Students Registered on Each Level . 81

XXXIV. Distribution of Extension Students According to the Number of Majors of Undergraduate Credit Earned in Extension and the Number of Students Who Received Bachelor's Degrees from the University of Chicago 82

XXXV. Distribution of Class-Study Students According to the Number of Majors of Credit Received in University College. 83

XXXVI. Percentage of Home-Study and University College Teachers Secured from Each Source Each Year during the Years, 1919-20 to 1928-29. 89

XXXVII. Distribution, by Degrees Held, of the Resident Staff and of Teachers in Each Group on the Home-Study and University College Staffs in 1928-29. . . 91

XXXVIII. Percentage of Home-Study, University College, and Resident Teachers and of Extension Teachers in Other Institutions Holding Each Degree. 92

XXXIX. Number of Resident Teachers and of Teachers in

Table Page

Each Group on the Home-Study and University College Staffs Holding Each Rank in 1928-29 94

XL. Percentage of Home-Study, University College, and Resident Teachers and of Extension Teachers in Other Institutions Holding Each Rank 95

XLI. Distribution by Departments of Home-Study Courses Taught by Groups 2 and 3 and of University College Classes Taught by Group 3 in 1919-20, 1928-29, and 1929-30 99

XLII. Number of Extension Teachers Engaged in Each Type of Work Other Than Class Teaching in the Winter Quarter of 1930 103

XLIII. Mean Estimated Value, in Units of Time and Energy, of Each Type of Class Teaching Work and the Differences between the Means 105

XLIV. Mean Estimated Value, in Units of Time and Energy, of Each Type of Work Other Than Class Teaching . . . 106

XLV. Differences between the Mean Values of Comparable Courses Taught on the Quadrangles and in University College 107

XLVI. Average Number of Theses and Dissertations That Claimed the Attention of Those Teachers Who Advised Graduate Students in Each Quarter of 1929-30 and for the Whole Year 111

XLVII. Number of Extension Activities and the Individual Loads in Units of Time and Energy, Based on the Mean Value of Each Activity, of Fifty-six Teachers in the Winter Quarter of 1930 112

XLVIII. Average Number of Papers Graded and Loads in Units Based on the Mean Value of Each Activity and on the Individual Estimates of the Values of the Activities 113

XLIX. Distribution of Fifty-six Teachers and Their Loads According to Departments 115

L. Average Yearly Production of Books, Reviews, and Articles According to Groups of Teachers--Those Who Taught in Home-Study, in University College, in Both, and in Neither during the Years, 1919-20 to 1928-29 117

LI. Average Annual Productivity of the Faculty Members of Those Departments That Provided Extension Teachers during the Ten Years, 1919-20 to 1928-29, According to Academic Rank 120

LII. Average Yearly Production of Various Groups of

Table

Page

Fifty-six Teachers with Loads above the Average . . 121

LIII. Individual Loads of Ten Teachers, Number of Home-Study Papers Graded by Each, and the Average Yearly Production of Each 122

LIV. Number and Percentage Distributions of the Answers Given by the Members of the Extension Staffs to Questions Concerning the Relative Quality of Work Done by Extension Students 125

LV. Distribution, by Types of Instruction, of the Grades, Grade Points, and Means of the Grades Issued by Fifty-three Teachers Who Taught Both in Home-Study and on the Quadrangles in 1928-29 and the Differences between the Means of Home-Study and Quadrangles Grades 127

LVI. Distribution, According to Types of Work and for Seven Departments, of the Grades, Grade Points, and Means of the Grades Received by 666 Students Who Studied Both in Home-Study and on the Quadrangles in 1927-29 and the Differences between the Means of the Home-Study and the Quadrangles Grades 129

LVII. Distribution, by Types of Instruction, of the Grades, Grade Points, and Means of the Grades Issued by Eighty-four Teachers Who Taught Both in University College and on the Quadrangles in 1928-29 and the Differences between the Means of the University College and Quadrangles Grades . . . 130

LVIII. Distribution, by Types of Work and for Eleven Departments, of the Grades, Grade Points, and Means of the Grades Received by 760 Students Who Studied Both in University College and on the Quadrangles in 1927-29 and the Differences between the Means of the University College and Quadrangles Grades 131

LIX. Grade Point Scores that May Be Predicted from Comparable Measures 132

LX. Sources of Funds Used for Paying Teachers and for Other Expenses in the Home-Study Department . . 135

LXI. Consolidation of the Financial Statements of the Home-Study Department, University College, and The American Institute of Sacred Literature for the Year Ending June 30, 1930 140

LXII. Salaries Received by Fifty-six Teachers in the Winter Quarter of 1930 for Each Kind of Activity

Table | Page

According to Contract and Terms of Agreement 145

LXIII. Service-Load Costs of the Activities Performed by Fifty-six Teachers in the Winter Quarter of 1930 Based on the Mean Values of the Activities . . 146

LXIV. Actual or Contract Costs and Service-Load Costs of Various Activities 147

Appendix

LXV. Number of Extension Activities and the Individual Loads in Units of Time and Energy, Based on Individual Estimates of Each, of Forty-seven Teachers in the Winter Quarter of 1930 184

LXVI. Distribution, According to Departments, of the Productions as Listed in the President's Reports of Those Members of the Faculty Secured from Departments That Offered Work in the Home-Study Department and in University College during the Ten Years, 1919-20 to 1928-29 185

LXVII. Service-Load Costs of the Activities Performed by Forty-seven Teachers in the Winter Quarter of 1930 Based on the Individual Estimates of the Value of Each Activity 186

LIST OF FIGURES

Figure — Page

1. Percentage of Men and Women Students in Each Age-Group Registered in the Home-Study Department and in University College 37
2. Percentage Geographical Distribution of the Students Registered in the Home-Study Department and of Resident Students Including Those in University College . . . 42
3. Percentage Distribution by Mile-Groups and Territorial Divisions of Students Registered in the Home-Study Department and Resident Students, Including Those in University College, in 1928-29. 45
4. Percentage Geographical Distribution of University College Students of the Autumn and Winter Quarters of 1929-30. 47
5. Percentage Distribution of Correspondence-Study and Class-Study Students in Three Occupational Groups 49
6. Number of Students and Registrations in the Home-Study Department in Each of the Ten Years, 1919-20 to 1928-29 . 59
7. Number of Students and Registrations in University College in Each of the Ten Years, 1919-20 to 1928-29. . . 60
8. Distribution by Departments of Registrations in Home-Study in 1919-20 and 1928-29. 62
9. Distribution by Departments of Registrations in University College in 1919-20 and 1928-29 63

8a. Number of New Courses, of All Courses, and of Registrations in Each Department in Home-Study in 1928-29. . . 64

9a. Number of New Courses, of All Courses, and of Registrations in Each Department in University College in 1928-29 65

10. Percentage of Home-Study and of University College Teachers Secured from Each Source 90
11. Percentage of Home-Study, University College, and Resident Teachers, Lecturers on the University College Public Lecture Program, and Writers for The American Institute of Sacred Literature with Each Degree in 1928-29, and of Teachers in Other Institutions. 93
12. Percentage Distribution by Academic Rank of the Home-Study, University College, and Resident Teachers,

Figure Page

Lecturers on the University College Public Lecture Program, and Writers for The American Institute of Sacred Literature in 1928-29, and of Teachers in Other Institutions 96

13. Percentage of Courses in Home-Study and of Classes in University College Taught by Teachers in Each Group in 1919-20, 1928-29, and 1929-30 98

14. Average Yearly Production According to Groups of Teachers--Those Who Taught in Home-Study Only, in University College Only, in Both, in Neither, and of All Teachers during the Ten Years, 1919-20 to 1928-29 118

15. Average Yearly Production, According to Academic Rank, of the Members of Those Departments Offering Work in Home-Study and in University College during the Ten Years, 1919-20 to 1928-29 119

16. Receipts and Expenditures in the Home-Study Department during the Eleven Years, 1919-20 to 1929-30 137

17. Receipts and Expenditures in University College during the Eleven Years, 1919-20 to 1929-30 138

18. Percentage Distribution of the Expenditures in Each of Three Extension Organizations in 1929-30 139

19. Percentage of Expenditures Used for Instructional Salaries and for Other Expenses Each Year in Home-Study and in University College 141

Appendix

20. Percentage Distribution of 1925-26 Grades and of 1928 Grades Issued to Graduate Students, the Percentage of Each Grade Level, and the Accumulative Percentages . . . 182

CHAPTER I

PROBLEM AND METHOD OF STUDY

Extension education has been carried on at the University of Chicago since the founding of the institution. It was included in the original plan of President Harper, which was presented ". . . . to the Board of Trustees at their fourth meeting, in December, 1890,"[1] and given to the public in Official Bulletin No. 1 in January, 1891.[2] This plan, which was partly the outgrowth of his rich experience in the field of adult education, provided for three divisions, namely, "the University Proper, the University-Extension Work, (and) the University Publication Work."[3] When the final plan was formulated, five divisions were included: "the University Proper, the University Extension, the University Press, the University Libraries, Laboratories, and Museums, and the University Affiliations."[4] Three of these divisions, the University Extension, the University Press, and the University Affiliations, were new features in the organization of an American university.

The work of the Extension Division was set forth as follows:

> "1. Lecture-Study: Regular courses of lecture-studies, with syllabi, conversational classes, exercises, and examinations, given at points more or less distant from the University.
> 2. Class-work: Regular courses of class instruction, in college and university subjects, given in the city of Chicago, and at points more or less distant.
> 3. Correspondence-teaching: Regular courses in college and university subjects, conducted by correspondence with students residing in various parts of the country.
> 4. Examination: To accredit the work done in the University Extension and as otherwise provided for.

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[1] Thomas Wakefield Goodspeed, William Rainey Harper (Chicago: The University of Chicago Press, 1928), p. 111.

[2] Official Bulletin No. 1 (Chicago: The University of Chicago, January, 1891), p. 7.

[3] Ibid., p. 7.

[4] Annual Register, July 1, 1892-July 1, 1893 (Chicago: The University of Chicago Press, 1893), p. 5.

5. Library and publications: 1. To provide works of reference for students of the University Extension, and such others as may be admitted to its privileges, and to encourage the better utilization of existing facilities. 2. To publish through the University Press, the official organ of the University Extension, manuals, syllabi, and other literature pertaining to the work of the Division.

6. District organization and training: To group towns closely connected, for organization into District Associations; and to train those wishing to engage in University Extension work, either as lecturers or organizers."[1]

The purpose of the Extension Division was defined in the following terms by President Harper:

"To provide instruction for those who, for social or economic reasons, cannot attend its classrooms is a legitimate and necessary part of the work of every university. To make no effort in this direction is to neglect a promising opportunity for building up the university itself, and at the same time to fall short of performing a duty which, from the very necessities of the case, is incumbent upon the university. It is conceded by all that certain intellectual work among the people at large is desirable; those who believe in the wide dissemination of knowledge regard it as necessary."[2]

Dr. Goodspeed, in writing of President Harper and his plan, says:

"It was his purpose to extend college and university instruction to the public at large, to make the University useful to other institutions and to expand its usefulness through its own press as widely as possible. In other words, the keynote of the University of Chicago was service; service, not restricted to the students in its classrooms, but extended to all classes."[3]

The foregoing quotations show clearly that President Harper believed that one function of the University was to exert its influence among those adults who could not find it possible or convenient to attend classes on the Quadrangles. But he was conscious of the fact that his proposals should be open to careful scrutiny. "In all this, however," says Dr. Goodspeed, "he was frankly experimenting, and honestly held himself ready to abandon

---

[1] Official Bulletin No. 6 (Chicago: The University of Chicago, June, 1892), p. 7.

[2] Ibid., p. 2.

[3] Goodspeed, op. cit., pp. 111-12.

any or all of his methods if they proved unsuccessful."[1]

As a result of this experimental attitude, a number of changes have since been made in the extension organization and in the services offered. At the present time the extension program of the University provides five types of service: correspondence-study instruction, class-study courses, public lectures, courses and materials on religious and Biblical themes, and radio programs.

The various extension activities are now conducted by four separate and distinct organizations: the correspondence-study instruction by the Home-Study Department; the class-study courses and public lectures by University College; directed study of the courses and materials on religious and Biblical themes by The American Institute of Sacred Literature, and the radio programs by the Radio Department. All off-Quadrangles services of the University are offered by these organizations with the exception of the work presented by the Institute of American Meat Packers, which is conducted by the School of Commerce and Administration co-operating with University College.

Statement of the Problem

The purpose of this study is to make an analysis of the extension program as now offered and to point out the trends over the ten-year period from 1919-20 to 1928-29. Data on some aspects of the problem are presented for succeeding years, 1929-30 to 1931-32. The main problem is divided into the following eight sub-problems:

1. Management of the extension activities
2. Types of activities carried on and the extent to which the various departments of the University participate
3. Character and composition of the student personnel
4. Use made of the work done in extension
5. Personnel of the teaching staff
6. Effect of extension work on the loads and scholarly productivity of the members of the staff
7. Relative quality of work done by extension students
8. Cost of the extension activities

The scope of the study is limited to the four extension organizations mentioned above, the activities of which furnish the sources of data and determine the methods of treatment.

Sources of Data and Method of Study

The data secured are of three types: (1) those secured in certain executive offices of the University--of the Secretary of the Home-Study Department, the Dean of University College, the Executive Secretary of The American Institute of Sacred Literature,

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[1] Ibid., p. 113.

the Director of the Radio Department, the Recorder, and the Comptroller; (2) those derived from questionnaires[1] filled out by members of the instructional and lecture staffs and by a sampling of the students registered in University College during the Autumn and Winter Quarters of 1929-30; and (3) those found in the published bulletins and documents of the University.

All the data were collected by the writer or by some of the clerks who were familiar with the records and the original sources used. All materials were checked by the writer against the sources so that the final data are as accurate as the original materials. Whenever samplings were used the reliability of all figures was determined and enough cases were included so that all figures are as statistically significant as it was possible to secure. If a figure is not significant because of too few cases or if its reliability is open to question, mention is made of this fact.

No attempt is made to present the statistical techniques and formulas used if these are available in current literature. Whenever a new technique is used or a new use is made of an existing formula or technique, the procedure is described in some detail.

The results of the study are presented in the following chapters, one chapter being devoted to each of the eight subproblems and one to a summary. Copies of the questionnaires that were used, some detailed tables, and certain computations are presented in the Appendix.

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[1]See Appendix, Sections A, B, and D.

CHAPTER II

MANAGEMENT OF THE EXTENSION PROGRAM

Five aspects of the management of the extension program of the University are analyzed: control, administration, facilities for offering the program, admission requirements, and the contents of bulletins or Announcements.

Control

The control of the extension organizations is closely related to the government of the University which is vested in the Board of Trustees. In accordance with the regulations of the Board, the Business Manager

> "shall have the management of all property, whether real, personal, or mixed. He shall receive all moneys and securities . . . . He shall sign and issue checks or warrants, but only in payment of vouchers previously certified by the Comptroller . . . ."[1]
>
> "The Comptroller shall keep proper books . . . . exercise general supervision over all accounts of officers of the University which have to do with the receipt or disbursement of funds . . . . examine all accounts, claims, and demands against the University, and no money shall be drawn from its treasury unless found by him to be within the appropriation or provision therefor."[2]
>
> "The President of the University shall be . . . . the head of all educational departments of the University . . . ."[3]

Certain advisory, legislative, and administrative powers concerning the collegiate, graduate, and professional work of the University are exercised by or are under authority of the Ruling Bodies.[4]

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[1] By-Laws of the Board of Trustees (Chicago: The University of Chicago, August, 1930), p. 8. (Proposed amendments to the By-Laws make the Treasurer responsible for receiving all moneys. April, 1932.)

[2] Ibid., p. 10.

[3] Ibid., p. 15.

[4] Ibid., pp. 27-28. A reorganization of the Ruling Bodies is now being made which will affect particularly the Administrative Boards.

The functions of these ruling bodies are stated below.

"The Senate has general legislative and administrative power over all matters not specifically reserved to a Faculty by this Statute. In regard to matters specifically reserved to a Faculty the Senate has the jurisdiction specified . . . . It may make recommendations to any Faculty concerning matters within the jurisdiction of the latter. It may alter or reverse actions of the General Board or of any University Board, and may prescribe rules for their government. It shall determine all questions of jurisdiction arising under this Statute between Ruling Bodies, except those questions (of jurisdiction arising under this Statute between a Faculty and the Senate, or a Faculty and the General Board, (which) shall be determined by the President,) and all matters pertaining to its own meetings.[1]

"The General Administrative Board has power, subject to the control of the Senate: to act in regard to all matters chiefly administrative in character not specifically reserved to a Faculty by this Statute; to act in regard to all matters specifically reserved to a Faculty, with (certain) jurisdiction . . . .; to alter or reverse the action of any University Board in any matter chiefly administrative in character; and to determine all matters pertaining to its own meetings.[2]

"The University Boards. To advise as to the work connected with the publications of the University Press, and to direct and control student organizations, publications, and exhibitions, the admission of students, the work of the Department of Physical Culture and Athletics, the management of the libraries, laboratories, museums, and the hospitals, religious activities, and non-resident work, and to advise as to relations with alumni, vocational guidance, and medical affairs involving two or more Faculties or affiliated institutions . . . ."[3]

The control of the extension organizations is different in each case, depending upon the functions performed and to a certain degree upon the origin and development of each.

Home-Study Department.- According to the printed rules and regulations of the University the Home-Study Department is controlled directly or indirectly by three of the University Boards

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[1]The University Ruling Bodies, 1929-30 (Chicago: The University of Chicago Press, 1929), pp. 6-7.

[2]Ibid., p. 9.

[3]Ibid., p. 28. Changes are now being made in the organization of the Administrative Boards.

and by five Faculty Section Committees.[1] All policies relative to admission, publications, and the enlargement of the services offered must be approved by the Board on Admission, the Board of University Publications, and the Board of University Extension respectively. Whenever the Secretary of the Department desires additional staff members for instructional purposes, he goes to the appropriate chairman of one of the following Section Committees: Sacred Literature, Physical and Biological Sciences, Education, General Literature, and Historical and Social Sciences. The chairman in turn goes to the head or chairman of a department to select a staff member. Before a final selection is made, the appointment must meet with the approval of the Secretary.

Current practice differs, however, from the printed statements of the procedure. The Secretary usually consults with a prospective appointee concerning the course that is desired and then goes directly to the head or chairman of the department concerned. The respective Ruling Bodies seldom meet. The practice of discussing an appointment with the prospective appointee before presenting the issue to the head or chairman of the department involved should be discontinued as this procedure sometimes results in embarrassment to all three parties. A prospective appointment should be discussed first with the interested head or chairman of the department and no one should be appointed who does not receive the approval of this officer and also of the Secretary.

The Secretary is directly responsible to the President and through him to the Board of Trustees for the general administration of the Home-Study Department, and to the Business Manager and Comptroller of the University for the business and financial aspects of the Department.[2]

University College.- Four of the University Boards,[3] Admission, University Publications, Libraries, and Laboratories, exercise some control over University College. Theoretically, policies relative to the admission of students, publications, the use of the libraries, and the use of the laboratories must receive the approval of the respective boards, but practically the policies are seldom presented to the Boards but to executive officers

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[1] This type of organization control was in operation at the time the data for the study were gathered.

[2] Ibid. (According to proposed amendments to the By-Laws of the Board of Trustees, the Treasurer will be responsible for receiving all moneys.)

[3] Ibid.

or committees of the Boards. The responsibility of selecting members of the instructional staff rests with the Dean of the College and the heads or chairmen of the departments and deans of the several schools. No staff member is appointed who is not approved by both the Dean and the head or chairman of the department or dean of the school concerned. The Dean, as does the Secretary of the Home-Study Department, sometimes discusses an appointment with the prospective appointee before presenting the case to the head or chairman of the department. Here, as in the Home-Study Department, all appointments should be presented first to the head or chairman of the department involved.

The line of responsibility is from the College office force and instructors to the Dean, to the President, and thence to the Board of Trustees.

The Dean co-operates with the Bookstore Manager in the control of the downtown branch of the Bookstore and with the Rental Library. The Business Manager and the Comptroller have control of the business and financial aspects of University College as they have of these aspects of the other units of the University.[1]

The American Institute of Sacred Literature.- The American Institute of Sacred Literature is under the control of an Executive Committee, appointed from the Faculty of the Divinity School, and an Executive Secretary who are responsible to the President and through him to the Board of Trustees. According to the agreement that was made when The Institute became affiliated with the University, The Institute is not dependent upon the University in any way except for office space and for the custody of the funds turned into the University treasury by The Institute.

Radio Department.- The Radio Department is controlled by one of the President's committees.

Administration of the Program

The various activities of the extension program are administered by the executive staffs of the extension organizations.

Home-Study Department.- The head of the Home-Study Department is the Secretary. Associated with him in the administration of the correspondence-study work are a number of clerks who assist in the management of the Department. The Secretary and his assistants determine the courses to be offered, secure instructors to offer these courses, advertise the services of the Department, register students, report the results of the students' work to the

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[1] According to proposed amendments to the By-Laws of the Board of Trustees, the Treasurer will be responsible for receiving all moneys.

Recorder's Office, and answer correspondence concerning the offerings of the Department.

All communications relative to registration are sent to the Secretary. As soon as the appropriate instructor is notified of a new registration, he forwards the lessons to the student. Thereafter, all correspondence in connection with the course work is addressed directly to the instructor in charge. The Secretary is kept in touch with the progress of the students by means of a monthly report received from each instructor in which he states the number of papers received and the number graded and returned.

The lesson outlines used in teaching are usually made by the instructors who teach the courses. (In a few cases teachers are using outlines made by former instructors.) Each lesson contains full directions for study, including references to the textbooks by chapter and page, necessary suggestions and assistance, and questions to test the student's methods of work as well as his understanding of the ground covered.

A student must provide his own books. For some of the courses sets of books have been prepared that may be rented from the Rental Library. For those science courses that require the use of a microscope and laboratory supplies, the needed materials may be rented from the Home-Study Department.

Students are permitted four quarters following the one in which the registrations are made for the completion of courses. Any requests for an extension of time, which are granted in meritorious cases, are made of the Secretary.

University College.- The administrative staff of University College is composed of the Dean and his assistants.

One of the largest problems faced by the staff is the determination of courses that are to be offered from time to time. A majority of the courses in University College are scheduled according to the needs of the prospective students as these needs are seen by the Dean of the College and his assistants. A few courses have been offered as a result of cooperative effort on the part of the Dean and certain organizations.

The first cooperative effort to plan for specific courses was made in 1925-26 when a course offered in co-operation with the Chicago Chemical Society was scheduled. The class was attended by forty-seven chemists who represented twenty-four different industries and by eleven teachers of chemistry in Chicago high schools. In the 1924-25 report of the Dean of the College, Mr. Filbey made the following pertinent statement concerning the plan.

"From the point of view of the University there is obviously a direct gain through this opportunity to extend research activities into the business, industrial, educational,

and other community affairs of Chicago.

"Viewed as an agency for close co-ordination of University activities with practical community affairs and as a device for stimulating the cultural life of the city through study and discussion in such fields as language, literature, history, and art, there can be no question regarding the opportunity for service which here lies before the University."[1]

In Dean Huth's report for 1926-27 is a statement in point.

"This development in University College work would seem to foreshadow wide possibilities for close cooperation with the larger industries, first in working out special training courses suited to the needs of their professional staffs, and second by contributing, directly under the leadership provided by the University, to the study and solution of problems growing immediately out of the processes in these industries."[2]

Courses have since been offered that were organized in co-operation with the meat packing industries, lithographic industries, and religious groups.

The Dean uses one procedure that assists very much in the determination of courses to be offered. Each quarter he asks students to indicate the courses desired the following year. He also confers with the local school officials who canvass the teaching corps of the city to determine the courses desired.

Under certain circumstances courses previously advertised are discontinued. The actual continuance of a course is dependent upon the number of registrants. In the case of insufficient enrolment,[3] any course may be discontinued by the Dean prior to or at the time of the first class session. Because of this condition, students are requested to complete registration before the opening of the quarter.

Students register in University College as they would for residence work. A representative of the Examiner's Office and departmental counselors are present during the registration period to render any assistance desired.

The academic year of University College coincides with that of the University except that the College offers no work

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[1] The President's Report, 1924-25 (Chicago: The University of Chicago Press, 1926), p. 24.

[2] The President's Report, 1926-27 (Chicago: The University of Chicago Press, 1928), p. 31.

[3] The number adopted as the minimum is fifteen. Under certain conditions, a class is continued for a smaller enrolment.

during the Summer Quarter.[1] The classes are held for the most part in the late afternoon and evening of Monday, Tuesday, Wednesday, Thursday, and Friday, and on Saturday morning. The afternoon hours are from 4:15 to 6:15, the evening hours from 7:00 to 9:00. The hours on Saturday are from 9:00 to 11:00 and from 11:00 to 1:00. A few classes have been held on Saturday from 1:00 to 3:00. Some of the laboratory classes meet in the evening from 7:00 to 10:00 and on Saturday morning from 9:00 to 12:00. These hours have been adopted as most convenient for the students who are engaged in teaching or in business.

The American Institute of Sacred Literature.- The services of The Institute are administered by the Executive Secretary with the counsel of the Executive Committee and the assistance of a clerical force. The three problems that require the greatest attention of the Secretary and assistants are (1) securing persons capable of writing the courses and tract literature, (2) securing funds for the advancement of the program, and (3) answering the many requests for information and advice.

Radio Department.- A President's Committee, composed of sixteen members of the Faculties, assists in formulating and approves all policies concerning radio programs. The Director of the Department, who is a member of the President's Committee, is the executive officer in charge of the services that are broadcast. He is also affiliated with the Public Relations Office.

Facilities for Offering the Program

Facilities for offering the extension program are provided on the Quadrangles and in quarters located downtown. The University furnishes office space on the Quadrangles for each organization--Home-Study Department in Ellis Hall, University College in Cobb Hall, The American Institute of Sacred Literature in Swift Hall, and the Radio Department in Mitchell Tower. In addition to the office space, store- and mailing-rooms are provided to a limited extent for the first and third organizations.

The Home-Study Department is somewhat handicapped because of inadequate quarters and an antiquated filing system. The examination cubicles should be acoustically treated and adequately heated and ventilated. The main room, where the office force works, should also be corrected acoustically. If the filing equipment were modernized, the efficiency of the organization would be increased.

Practically all the activities of University College are carried on downtown. Most of the class-study courses are con-

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[1] A Six-weeks Term was offered during the summers of 1931 and 1932.

ducted at the quarters of the College in the Gage Building, 18 South Michigan Avenue. The classrooms are fairly well adapted to teaching purposes and teaching equipment is provided in an increasing amount. During afternoons and evenings, students have access to a well-lighted reading room and a reference library which provide conditions suitable for study.

A few courses, especially those of a laboratory character, are given on the Quadrangles where adequate facilities for such work are available, and the courses offered in co-operation with The Institute of American Meat Packers are held at the Stock Yard Inn, Union Stock Yards. A few classes have been held in nearby cities and suburban centers.

The public lectures are given in the Art Institute either in Fullerton Hall or in the Club Room.

The office and studio of the Radio Department are located in Mitchell Tower where ample equipment is provided for transmitting programs to the broadcasting stations.

Admission Requirements

The requirements for admission to the extension activities vary in the different extension organizations.

Home-Study Department.- The only requirement for admission to correspondence-study work is a reasonable assurance, on the part of the Secretary, that the student can succeed in the course or courses that he desires. To enable the Secretary of the Department to judge whether or not the student is prepared to attempt a given course, the following information is asked for on the "Application for Instruction" blank:

1. Occupation
2. High schools, academies, normal schools, etc., attended, with period and date of attendance at each
3. Colleges or universities attended, with period and date of attendance at each and also degree received from each
4. Number of hours a week to be given to study
5. Instruction student has had in the subject in which the desired course falls

The following paragraphs taken from the Announcements constitute the published statements concerning admission.

"Rarely is it necessary to examine an applicant for a home-study course or to require proof of his previous training. But before enrolling him, the University wishes to be reasonably sure that he can succeed in the course or courses desired, and it reserves the right to recommend courses other than those selected or to decline his application if the

statements on his blank justify such action.[1]

"Regulation 5. If a home-study student, whose college standing has not been determined, wishes to study in residence, he must satisfy the University's admission requirements."[2]

Each application is handled separately and decisions are made according to the merits of the individual case.

University College.- There are no admission requirements to the public lectures conducted by University College except the fees. The entrance requirements to the class-study work are the same as those governing the work of the other colleges of the University. Two types of students are recognized, Regular students and Unclassified students. The requirements for admission of each type of student are stated in the following quotation:

"Admission.- 1. Regular students.- Admission to regular standing in University College is granted to the following classes of students: (a) To those who have fulfilled the requirements for admission to any one of the Junior Colleges. (b) To teachers in the public or private schools of Chicago or vicinity who have completed a four-years' course in a Chicago high school or the equivalent thereof.

"2. Unclassified students.- Persons not under twenty-one years of age, who have not had the requisite amount of preparatory training for registration as regular students, and who are not seeking degrees, are admitted as unclassified students to courses which, in the judgment of the Dean and instructors, they are prepared to pursue with profit.

"Conditions relating to admission, advanced standing, and degrees for students in University College are the same as those governing other colleges of the University of Chicago. These regulations are printed in full in the Announcements of the Graduate Schools and Colleges of Arts, Literature, and Science and of the School of Education."[3]

The American Institute of Sacred Literature.- The only admission requirement to the work administered by The American Institute of Sacred Literature is a desire upon the part of the student to become more familiar with the Scriptures or to solve some religious difficulty confronting him. The materials are so

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[1] Announcements, Home-Study Department, 1930-31, Bulletin of the University of Chicago, XXX, No. 26 (Chicago: The University of Chicago Press, 1930), p. 7.

[2] Ibid., p. 10.

[3] University College, 1929-30, Bulletin of the University of Chicago (Chicago: The University of Chicago Press, 1929), p. 4

written that all who have mastered the rudiments of reading may understand them. In fact, many of the publications are read by teachers or leaders to persons who cannot read.

Radio Department.- There are no requirements for listening to the broadcasts except access to a receiving set. Those who study in connection with courses given in this manner may or may not purchase the suggested study materials. The radio courses are so presented that opportunities are provided for students to prepare papers on assigned exercises. If these students wish to have their work corrected, a small fee is charged for this service.

Restrictive nature of entrance requirements.- The entrance requirements, as set forth in the preceding paragraphs, may seem to limit to some extent those who might desire to study, especially those wishing to study in University College. A majority of the Home-Study teachers said that the admission requirements should be as strict for correspondence-study work as for residence work. Others added that the requirements should be the same if the studying is done for credit.[1] Over 90 per cent of the University College teachers favored retaining the same regulations for regular students while about two-thirds recommended more lenient regulations for the unclassified students.[2] Until a better method is devised for determining the ability of students to do the work offered in extension, the present requirements are perhaps justified.

One other element in the entrance requirements that might be questioned is that of prerequisites. It is known that all prerequisites are not essential to pursuing a later course. It appears further that what is sometimes set up as a prerequisite means a duplication of work. Instead of the materials and abilities, previously learned and acquired, being used in succeeding courses, the subsequent courses are too often merely expansions of the work done earlier. Johnson[3] shows clearly that some prerequisites have no scientific basis. Koos[4] points out the great amount of overlapping of high-school and college courses, and Miss Hunt[5] supports in a later study his conclusion.

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[1]See Appendix, Section A, question 5.

[2]See Appendix, Section B, question 5.

[3]Palmer O. Johnson, Curriculum Problems in Science at the College Level (Minneapolis: The University of Minnesota Press, 1930), pp. 31, 42, 138.

[4]L. V. Koos, "Overlapping in High School and College," Journal of Educational Research, XI, No. 5, pp. 330-32.

[5]T. Hunt, "Overlapping in High School and College Again," Journal of Educational Research, XIII, No. 3, p. 207.

The generalization cannot be made from Johnson's study that all prerequisites do not function. However, his study and the two on overlapping of courses justify raising the following questions: Are prerequisites as now required really requisite? Should not studies be made to determine the wisdom of continuing the present requirements for entrance and for pursuing certain courses?

Both the Secretary of the Home-Study Department and the Dean of University College waive the requirement of prerequisites when in their opinions students' past experiences indicate that they should be able to pursue desired courses. It would be desirable for a study to be conducted to determine the relative quality of work done by students who have not met the prerequisites as compared with the quality of performance of those who have met all prerequisites. A study, similar to Johnson's, would show to what extent succeeding courses are based on prescribed earlier courses. These two extension organizations have the opportunity of experimenting not only with types of courses for adult education but also with the character of preparation that should be demanded for each course offered in an adult education program.

The Announcements

As is the custom in higher institutions of learning, the University publishes a series of bulletins, here called Announcements. The most comprehensive issue of the series is the Announcements of the Colleges and Graduate Schools of Arts, Literature, and Science. Separate Announcements are issued by the several units of the University.

Purposes and content of "Announcements."- Two purposes of such publications are (1) to give the information that a prospective student desires to know relative to the admission requirements, methods of registration, and the regulations governing the conduct of the work, and (2) to present brief or condensed descriptions of the courses of instruction that are offered by the institution.

In the various Announcements of the University, the following items are found in the course statements:

1. Number of the course
2. Name or title of the course
3. Description of the course, including a brief statement of the purposes and of the field of learning to be covered, and, in some instances, the method of studying to be employed
4. Textbooks used, with the authors and publishers
5. Prerequisites
6. Credit value

7. Time the course is offered
8. Instructor

The usual practice is to include all these items except the fourth, textbooks used.

Problems arising in connection with course statements.- Two problems appear in connection with the course statements found in the Announcements of Home-Study Department, of University College, and of the Colleges and Graduate Schools of Arts, Literature, and Science. (The last is hereafter referred to as the General Announcements.) First, one item in the course statements, such as the number, title, or description, is sometimes changed from what it was in a previous bulletin without an accompanying change in the other items. Second, the statements about some of the courses are not the same in different publications issued in a single series.

Some of these changes and differences in course statements have produced undesirable results. Students have, according to information received from the Recorder, sometimes registered a second time unknowingly for the same course. In some instances they have lost credit because they repeated work on the Quadrangles that had been taken in Home-Study or University College, or vice versa, because of the change or difference in course numbers and titles. There is some evidence to show that students sometimes fail to recognize a course that they have taken if too great changes have been made in the description.

If the course being repeated has changed so much in content that the students fail to recognize it as one that has been taken earlier, credit should not be denied. If the student has forgotten the content of the course since taking it the first time, he should, no doubt, repeat it without additional credit.

Course descriptions in the Home-Study Announcements and University College Announcements should be more in detail than is necessary in the statements of courses to be given on the Quadrangles, because Home-Study students, as a rule, have no opportunity and University College students have little opportunity to discuss the purposes, content, etc., of the courses with the instructors.

The statement of a course, wherever it is found, should be the same in the following items:

1. Number of the course
2. Title of the course
3. Essential content of the description of the course, including prerequisites.

The foregoing recommendation is at variance with the practice of the Home-Study Department in that the Announcements of the

Department do not include the prerequisites. These should be given just as they are in the General Announcements. There should be a statement in the information section to the effect that prerequisites will be waived upon presentation of evidence that the student is qualified to do the work of the course. This would enable the statements to conform to the general policies of the departments and would protect the Secretary in making his decisions in regard to the individual abilities of the students.

There are times, however, when it may be deemed wise to change the number or title of a course without wishing to imply that a different course is indicated. In such cases, whenever the number or title is changed a note should be given to the effect that the newly numbered or titled course is the same as the old.

The Announcements are published primarily for the benefit of the students and every effort should be made to eliminate any possibility of confusion and misunderstanding.

CHAPTER III

EXTENSION ACTIVITIES

Five types of service are offered in the extension program of the University: correspondence-study work, class-study work, public lectures, courses and materials on religious and Biblical themes, and radio programs.

Correspondence-Study Work

The correspondence-study work is offered by the Home Study Department. This service was designed to appeal to the following classes:

> "(1) Students preparing for college; (2) college students who are unable to pursue continuous resident study; (3) grammar and high-school teachers who have not had and cannot avail themselves of resident college instruction; (4) teachers and others who have had a partial college course and wish to work along some special line; (5) instructors in higher institutions who desire assistance in the advanced study of some special subject; (6) professional and business men who wish technical advice; (7) ministers and Bible students who would fit themselves better to use the sacred Scriptures; (8) all who desire a broader knowledge or a more thorough scholarship."[1]

In a recent bulletin is the following published statement by the Secretary of the Department.

> "These courses are designed not only for those who are interested in a general education but also for those who wish to study further some particular subjects. They appeal, therefore, to students who have been forced to drop out of high school or college, to grammar- and high-school teachers who cannot leave their positions, to instructors in higher institutions who desire guidance in their special fields, to professional and business men who need to supplement their training, to ministers and Bible students who desire a truer understanding of the Scriptures, to parents who wish to deal wisely with their children or who are eager to help them

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[1] Annual Register, July, 1899-July, 1900 (Chicago: The University of Chicago Press, 1900), p. 94.

advance in their school work, and to forward-looking men and women in all walks and relations of life."[1]

The preceding quotations differ in one significant particular--only the second includes a special reference to parents. The inclusion of this group in the more recent statement is due, no doubt, to the recent Parent-Teacher movement and the trend that adult education has taken in the last few years.

Although the correspondence-study work appeals primarily to non-resident students, those who cannot or who do not find it convenient to leave their places of employment or their homes to attend classes, yet it also serves certain resident students who find it advantageous to study by correspondence. The number of such students constitutes only about six per cent of the total; however, the opportunity to pursue courses by correspondence proves to be of significance to these few students. Some are unable to complete the courses for which they are registered before leaving the Quadrangles. The most common causes for the withdrawal of students before the close of a quarter are illness and the necessity for arriving at places of employment. The latter cause applies especially to summer-school students who are teachers. The University regulations forbid the giving of a final examination before the scheduled period, therefore, students who must withdraw before the date of the examination often complete their work by correspondence. A very few other resident students study by correspondence as a means of continuing their sequences without interruption because some of the courses prescribed on curricula are not offered on the Quadrangles when needed. The number of students in the last group was so small that no separate analysis was made of them.

Kinds of courses.- The courses offered by correspondence are grouped under three headings: non-credit, high-school, and college courses.

A non-credit course commands no credit toward fulfilling either the entrance or graduation requirements.[2] During the ten-year period from 1919-20 to 1928-29, the number of non-credit

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[1] Announcements, Home-Study Department, 1930-31, op. cit., p. 6.

[2] The American Institute of Sacred Literature offers a few certificate courses of a non-credit character that are not included in the courses of this type given by the Home-Study Department. Registration for certificate courses must be made through The Institute.

courses ranged from three to five.[1] This limited offering, which has been increased by only three courses since 1910, indicates that the University has never seriously considered providing formal educational opportunities for those who have less than an elementary education, nor training of a non-credit character in other than the religious field.

A high school course[2] is one offered to those who have not yet completed their secondary training. A student may earn through correspondence-study any or all of the fifteen units of high-school work required for entrance to the Junior College. Three programs are outlined in the Home-Study Announcements that set forth the suggested courses that will "fulfill the admission requirements most effectively" to the curricula leading to the A.B., Ph.B., and B.S. degrees, respectively, and . . . ."leave the maximum freedom of election in college."[3]

The number of different high-school courses offered by correspondence during the period, 1919-20 to 1928-29, ranged from thirty to thirty-nine. The courses found listed under "High School" in the Announcements of the Department during this period include four courses that might command college credit under certain conditions and two courses that command no credit. The number of courses designed specifically for entrance credit ranged, therefore, from twenty-four to thirty-three. In the 1929-30 Home-Study Announcements three courses that formerly commanded college credit are listed as high-school courses, two of which are consolidated in the 1930-31 Announcements. In the latter year the high-school course formerly offered by the Department of Geology and Paleontology is omitted.

A course offered by the Home-Study Department classed as a college course is one that commands credit that may be used toward meeting the requirements for graduation. Students may earn by correspondence study as much as 50 per cent of the credit required for a baccalaureate degree. The regulations of the Graduate Faculty forbid granting graduate credit for correspondence-study work. However, credit so earned has been accepted toward

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[1] Ibid.

[2] A course is not considered a high-school course unless it is so described or listed under "High School." The course descriptions of Physics 1 and 2 in the 1919-20 Announcements, Home-Study Department, stated that the first year of high-school physics is covered in these courses, but they are not recorded as high-school courses.

[3] Announcements, Home-Study Department, 1930-31, op. cit., p. 11.

an advanced degree in a few isolated cases. The college courses are divided into four groups as follows, the first figure in each number indicating the group in which the course belongs.

"101-199.--Courses primarily for undergraduates with not more than 18 majors of credit . . . .

201-299.--Courses primarily for undergraduates with more than 18 majors of credit . . . .

301-399.--Informational and advanced technical courses that assume a previous general survey of the field, method, or problem treated. Open to undergraduates with 27 majors of credit including departmental prerequisites . . . .

401-499.--Pre-research, problem, and research courses. (For graduate students.)"[1]

There are a few college courses known as limited-credit courses. These carry full credit only under certain conditions as stated in the following quotation:

> . . . . (a) full credit is given only when these courses are taken among a student's first 18 majors, and the total number so taken may not exceed 9; (b) after a student has credit for 17½ majors but fewer than 27, these courses will be credited at one-half major each; after he has credit for 27 majors, they will not be credited at all."[2]

The number of limited-credit courses offered in Home-Study for the period ranged from eleven to thirty-eight. During the last nine years the number has remained practically the same after having been increased from eleven in 1919-20 to thirty-six in 1920-21. Thirty-eight limited-credit courses are listed in the 1928-29 Announcements.

The number of different college courses ranged from 374 in 1919-20 to 422 in 1927-28. The number offered in 1928-29 is 418.

Ann attempt was made to classify these into junior-college, senior-college, and graduate or advanced courses. The plan followed in this study is to indicate a course as junior-college, senior-college, or graduate or advanced if the Announcements specifically state the level of the course. Prior to 1925-26 the levels of few courses were indicated. Beginning with the year 1925-26, when the present numbering system was adopted, courses numbered 101-199 are classified as junior-college, those 201-299 as senior-college, and those 301-399 and 401-499 as advanced. This classification varies somewhat from practice in that undergraduates are permitted to take courses numbered above 300 under-

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[1] Ibid., p. 12.
[2] Ibid., p. 9.

certain conditions, especially in their senior year. In a number of cases the course numbers are not given in the Home-Study Announcements, but the levels of some of these courses are indicated by specific marks referring to descriptive notes.

In the Announcements of the Home-Study Department for 1921-22 and 1922-23 two courses are indicated as junior-college and one course as senior-college. Prior to 1925-26 thirteen to fifteen each year are described as advanced courses. The distribution by levels of Home-Study college courses offered since the adoption of the present numbering system is given in Table I.

TABLE I
DISTRIBUTION BY LEVELS OF COLLEGE COURSES
OFFERED IN HOME-STUDY

Level	Number of Courses Offered in			
	1925-26	1926-27	1927-28	1928-29
Junior-college	97	100	92	89
Senior-college	116	116	129	128
Advanced	103	98	99	98
Level not given	97	105	102	103
Total	413	419	422	418

This table shows that since 1924-25 the levels of approximately three-fourths of all college courses are indicated. The number of junior-college courses is about the same as the number of advanced courses while the number of senior-college courses is approximately 30 per cent greater than the number of courses on either of the other levels. There is a slight tendency for the number of junior-college and advanced courses to become less in the later years. These decreases, though small, and the greater number of senior-college courses may be traced to three possible causes: (1) the increased number of Junior Colleges that are accessible to students renders less of a demand for courses on this level; (2) some school corporations employ teachers with senior-college standing and these persons continue their training on the senior-college level while employed; and (3) as students may not receive graduate credit for work done by correspondence, the demand for advanced courses is decreasing.

There is one other point revealed in Table I that has some significance. It will be recalled from Page 18 that correspondence-study courses were designed to appeal to (5) instructors in higher institutions; (6) professional and business men who wish technical advice; and (8) all who desire a broader knowledge or a more thorough scholarship. Apparently, the appeal has not been

made to these classes in society as was planned in the early years of the institution. Whether the failure is due to the character of the courses offered or to an objection on the part of these persons to study by correspondence is not known. If it is still desirable to appeal particularly to these social groups, there is an opportunity for experimentation with courses that might be desired. It seems entirely possible, to indicate three illustrations of what might be done, that courses could be devised by members of the Medical Faculty that would appeal to physicians in the field, that the results of current research in Education could be made available to teachers-in-service to the end that they would be able to grow while at work, and that courses might be outlined by the Commerce and Administration Faculty that would have significance to business men. No doubt, the courses would have to be outlined in a somewhat different fashion from the plan in practice. This should not prove a very great difficulty, however.

Departments offering correspondence-study courses.- Six departments offered thirteen non-credit courses at some time during the ten-year period: Latin, Romance Languages (French), German, English, Mathematics, and Divinity.[1] In 1928-29 four departments offered courses of this character: Latin, Romance Languages, English, and Mathematics. Since 1920-21 the Divinity non-credit courses have been offered as certificate courses by The Institute.

Ten different departments provided courses at some time during the ten years that were designed especially for high-school students. Throughout the entire period, 1919-20 to 1928-29, courses of this character were offered by the departments of History, Latin, English, Mathematics, and Geology. Such courses were offered by the departments of Economics, Commerce and Administration, Art, Greek, and Hygiene and Bacteriology only during a portion of the time.

Fifteen departments presented thirty-eight limited-credit courses at some time during the ten years. The following ten departments offered such work in 1928-29: Economics, Political Science, History, Art, Latin, Romance Languages (French and Spanish), German, English, Physics, and Geology. In this year, twenty-three of the thirty-eight limited credit courses were offered by three departments: eleven in Art, six in French, and six in German. The other departments gave from one to four courses each. Prior to 1925-26 the Education Department gave the courses that were later listed under Art.

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[1]The various professional schools are referred to as departments throughout the report.

The number of college courses offered by each department in Home-Study during the ten-year period is given in Table II.

Of the thirty[1] departments offering college courses, as is shown in this table, all gave courses each year except Commerce and Administration, Physiology, Physiological Chemistry and Pharmacology, and Social Service Administration. The number of courses offered in 1928-29 by the several departments ranges from 0 to 68, with almost an equal range in each of the other years. If these departments are grouped in the four divisions,[2] for the year 1928-29, the percentage of courses offered in each is as follows: Biological Sciences 8.1 per cent, Humanities 61 per cent, Physical Sciences 8.6 per cent, and Social Sciences 22.3 per cent. The distribution of the offerings by divisions as well as by departments shows that a balanced schedule could not be selected by a student. True, the University does not permit a student to earn by correspondence more than 50 per cent of the credit required for a Bachelor's degree, but if the Home-Study Department is to be guided by the statement of purposes, given earlier in this chapter, a more balanced schedule of courses would be desirable.

The number of courses listed in the natural sciences is comparatively low due to the fact that laboratory facilities are not at the disposal of most correspondence-study students. In light of the present trend against so much laboratory work in these subjects, experimentation with some new type of course outline might prove that additional work could be done in the sciences by this method of study.

The present correspondence-study method is more applicable to the courses in some departments than in others. This is particularly true of Education, English, and History, departments that offer a number of courses. The extensive offering of the Education Department is also due to the demand of teachers who are desirous of meeting promotional requirements and who desire assistance in the solution of their immediate problems. Other departments offer a great many courses with the thought that additional offerings will build up a demand. The Divinity School is an illustration of this attitude.

The reason for some other departments offering a great many courses while some provide but a few is unknown to the writer. There are two possible contributing factors, however: first, some departmental staffs contain faculty members who may be imbued with

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[1]The total number of academic departments, including schools, in the University during the ten-year period ranges from thirty-five to thirty-nine.

[2]History is included in the Humanities Division.

TABLE II

DEPARTMENTAL DISTRIBUTION OF COLLEGE COURSES OFFERED IN HOME-STUDY DURING THE TEN-YEAR PERIOD FROM 1919-20 TO 1928-29

Department	Number of Courses Offered Each Year									
	1919 -20	1920 -21	1921 -22	1922 -23	1923 -24	1924 -25	1925 -26	1926 -27	1927 -28	1928 -29
Philosophy	11	12	12	12	12	11	11	11	11	11
Psychology	6	6	6	5	5	6	7	7	7	7
Education	62	64	67	66	61	69	54	57	57	57
Economics	10	9	10	13	15	15	6	6	6	6
Commerce and Administration	0	0	0	0	0	0	17	17	17	11
Political Science	4	4	4	5	6	5	5	4	4	4
History	20	17	17	16	16	17	16	16	16	16
Art*	3	3	2	2	2	2	17	17	18	18
Sociology and Anthropology	15	14	14	16	14	14	12	11	11	11
Home Economics	3	3	3	3	3	3	4	5	5	3
Divinity	42	61	59	61	61	64	64	64	61	68
Comparative Philology	6	6	6	6	6	6	6	6	5	3
Greek	12	12	12	12	12	12	12	12	12	12
Latin	17	20	21	22	22	20	20	20	20	20
Romance Languages--										
French	15	13	13	13	12	14	15	16	18	17
Italian	2	2	1	2	2	2	2	2	2	2
Spanish	7	7	7	7	11	11	11	11	10	10
German	18	18	18	18	18	17	17	18	21	18
English	49	47	46	46	46	45	47	48	49	50
Comparative Literature	7	7	9	9	9	9	9	9	9	9
Mathematics	12	15	14	14	14	15	16	17	15	17
Astronomy	8	8	5	5	5	5	5	5	5	5
Physics	2	2	2	2	2	2	2	2	2	2
Chemistry	6	6	6	6	6	6	6	6	7	7
Geology	5	4	4	4	4	5	5	5	5	5
Botany	11	11	12	12	12	11	11	11	11	12
Zoology	11	11	11	11	9	8	8	7	7	7
Physiology	3	0	0	0	0	0	0	0	0	0
Physiological Chemistry and Pharmacology	0	0	0	0	1	1	1	1	1	1
Hygiene and Bacteriology	6	6	6	6	6	6	5	5	5	4
Library Science	1	1	1	1	1	1	1	1	1	1
Social Service Administration	0	0	0	0	0	0	1	2	4	4
Total	374	389	388	395	393	402	413	419	422	418

*Until 1925-26, sixteen courses in drawing were listed under Education.

the spirit of service voiced by President Harper, Chemistry for example; and second, a few departments may be providing courses for the purpose of furnishing an opportunity for some of their staff members to earn additional salary.

It is interesting to note that so many courses are offered in foreign languages. Almost one-fifth of all the courses listed in 1928-29 are in Greek, Latin, French, Italian, Spanish, and German. It has been contended by some that foreign languages cannot be taught by correspondence, yet here even introductory courses are offered in Greek, French, Italian, and German. Approximately 10 per cent of the students who have received credit by correspondence in a beginning course in modern foreign languages have continued their study of the language in residence. Of these, none received a failing grade and only one a "D" grade in a residence language course. The average grade received in correspondence-study is about one-half letter grade higher than the average of the grades received in later language courses in residence, the former being 4.9 ± .192 grade points and the latter being 3.8 ± .192.

New courses.- The new demands arising from time to time have been met to some extent by the addition of new courses. There is also evidence to show that the offering of new courses has resulted in new matriculations and registrations. Table III gives the number of new courses that were added each year after 1919-20 by each department.

As Table III shows, the greatest total number of new courses added in any one year is thirty-six in 1925-26, while the smallest number for a single year is fourteen in 1922-23. The departments that most consistently added new courses each year are Divinity, Education, and English.

Seven departments offered no new courses during the nine years following 1919-20. If the Home-Study Department is to fulfill the purposes as set forth at the beginning of this chapter, particularly in appealing to those who have been graduated from institutions of higher learning, it is necessary that the courses keep pace with advances that have been made in the various fields of thought. It may be assumed that the physicians, lawyers, business men, and others who completed their scholastic careers nine years ago were familiar with their respective fields upon graduation. Any appeal to these persons can only be made by means of new courses.

Class-Study Work

The extension class-study work, which is offered by University College, is provided for various types of students as is shown in the following statement by the Dean of the College.

TABLE III

NUMBER OF COURSES OFFERED IN HOME-STUDY IN 1919-20 AND NUMBER OF NEW COURSES OFFERED EACH SUCCEEDING YEAR BY EACH DEPARTMENT

Department	Total No. of Different Courses Offered	Number Offered in 1919-20	Number of New Courses Offered								
			'20-21	'21-22	'22-23	'23-24	'24-25	'25-26	'26-27	'27-28	'28-29
Divinity	94	42	23	4	3	1	3	0	2	2	14
Education*	94	62	5	3	1	5	9	3	2	3	1
Economics	10)										
Accounting	12)	11	0	1	3	3	0	3	0	1	0
Commerce and	)										
Administration	6)							6			
Art*	19	3	0	0	0	0	0	15	0	1	0
Romance Languages--											
French	22	15	0	0	0	0	2	1	1	3	0
Italian	2	2	0	0	0	0	0	0	0	0	0
Spanish	15	7	2	0	0	4	0	0	1	1	0
English	69	55	0	3	0	2	1	2	4	1	1
German	28	18	0	2	0	0	3	0	1	4	0
Mathematics	26	17	0	0	0	1	1	3	1	0	3
Psychology	11	6	0	0	0	0	1	1	1	0	2
Sociology and Anthropology	20	15	2	0	2	0	0	0	1	0	0
Other Departments[a]	187	160	2	4	5	2	2	2	2	6	2
Total	599[b]	413	34	17	14	18	22	36	16	22	23

*Sixteen courses were common to Education and Art.

[a]Includes the following departments which offered, during the nine years, the number of new courses indicated: Social Service Administration 4, History 3, Home Economics 3, Comparative Philology 3, Latin 3, Philosophy 2, Political Science 2, Comparative Literature 2, Botany 2, Chemistry 1, Geology 1. Physiological Chemistry and Pharmacology 1, and Greek, Astronomy, Physics, Zoology, Physiology, Hygiene and Bacteriology, and Library Science none.

[b]Net total.

"(The purpose of the College is) to meet the needs of persons who cannot spend their entire time in study in the classrooms, libraries, and laboratories on the University Quadrangles . . . . The University thus offers to persons engaged in teaching, other professions, and business, who can give only a portion of their time to study, opportunity to pursue certain subjects included in a liberal education and to have these credited, if they so desire, toward an academic degree.

"Many persons regularly engaged in business or professional work, including a large percentage of the teachers in the Chicago and suburban schools, have completed a full high-school course of four years and many have done advanced work in colleges and other institutions."[1]

A student may earn any or all of the credit required for a Bachelor's degree in University College, provided that the courses prescribed on his sequence are offered. Not more than one-third of the residence requirement for the Master's degree may be met by pursuing class-study courses, but as much as two years of work may be taken toward the Doctorate if the desired courses are provided.

The total number of class-study courses offered during the ten years is 735, the number scheduled each year ranging from 126 in 1919-20 to 258 in 1928-29. A constant increase is shown except in 1925-26 when there was one course less than in 1924-25.

Kinds of class-study work.- The class-study work is of two kinds: non-credit and credit courses.

The non-credit work is limited to reading courses in the foreign languages. Only five courses of this character have been given during the period studied.

Here, as in Home-Study, a few of the courses are known as limited-credit courses. The number of these courses throughout the ten years ranges from six to fifteen. The other class-study courses command credit without reservations.

The class-study courses are offered on all levels, junior-college, senior-college, and graduate. Table IV gives the distribution of all courses by levels.

TABLE IV

DISTRIBUTION, ACCORDING TO LEVELS, OF COURSES OFFERED IN UNIVERSITY COLLEGE

Level	Number of Courses Offered in									
	1919 -20	1920 -21	1921 -22	1922 -23	1923 -24	1924 -25	1925 -26	1926 -27	1927 -28	1928 -29
Junior-college	16	6	8	11	14	15	65	62	64	64
Senior-college	0	0	14	10	19	25	112	110	119	114
Graduate	55	80	74	97	99	125	60	71	65	78
Classification not indicated	55	70	72	59	57	74	1	2	2	2
Total	126	156	168	177	189	239	238	245	250	258

As Table IV shows, during the first six years of the period studied, from six to sixteen courses are indicated each year

[1] University College, 1929-30, op. cit., p. 4.

as junior-college, and from 55 to 125 as graduate courses. In the first two years of the period no courses are listed as senior-college, while in the next four years the number ranges from ten to twenty-five. Since 1925-26 the least number of courses is on the junior-college level and the greatest number on the senior-college level. There are three possible explanations for the proportion of courses on each level: (1) the number of junior-college demands is relatively small due to the local public Junior Colleges and to the City Teachers College; (2) there are more senior-college courses because of the demand by those who have completed their early training in the Junior Colleges and City Teachers College; and (3) there is some demand for graduate work by graduates teaching in the metropolitan area who desire promotional credit and higher degrees, and by workers in other professional fields and in the business world. The plan, used by the Dean of the College, of developing cooperative courses has promise of creating a further demand for courses of an advanced character.

Departments offering class-study courses.- The distribution by departments of the courses offered in University College during the ten-year period is given in Table V.

Twenty-seven departments offered courses in University College during the ten-year period, two of which, Romance Languages and German, offered non-credit courses. Four non-credit courses, two in French and two in German, were offered in 1920-21 and one course in German was given in 1927-28 and also in 1928-29.

Seven departments provided limited-credit courses during the period: Economics, Political Science, History, Romance Languages, German, English, and Geology. The departments of Romance Languages, German, and English offered a majority of the courses of this kind.

As Table V reveals, four departments, Education, History, Romance Languages, and English, offered 64 per cent of the 126 courses in 1919-20 and 49 per cent of the 258 courses in 1928-29. If the Divinity School is also included, these five departments offered 149 or 58 per cent of the total number of courses in 1928-29.

There are at least three explanations for the differences in the number of courses offered by the several departments: (1) the demand made by the clientele of University College as illustrated by the departments of Education and English; (2) the attempt of a department to build up a demand by offering a large number of courses as is done by the Divinity School; and (3) the provision by a few departments of an opportunity for some of their staff members to earn additional salary.

If the courses offered in 1928-29 are grouped according

to divisions, the percentage in each is as follows: Biological Sciences 10.4 per cent, Humanities 46.9 per cent, Physical Sciences 9 per cent, and Social Sciences 33.7 per cent. Here as in the Home-Study Department the unbalanced character of the offerings precludes a student from securing a well-rounded curriculum. The many new courses offered each year enlarges the opportunity, however.

TABLE V

DISTRIBUTION BY DEPARTMENTS OF COURSES OFFERED IN UNIVERSITY COLLEGE DURING THE TEN-YEAR PERIOD FROM 1919-20 TO 1928-29

Department	Number of Courses Offered									
	1919 -20	1920 -21	1921 -22	1922 -23	1923 -24	1924 -25	1925 -26	1926 -27	1927 -28	1928 -29
Philosophy	2	0	2	0	1	3	2	4	4	5
Psychology	2	5	3	3	6	6	7	7	7	5
Education	29	26	36	32	42	61	54	51	44	52*
Economics	7	11	9	9	5	12	11	11	9	7
Commerce and Administration	0	0	0	0	1	3	4	2	2	2
Political Science	0	0	2	3	2	4	4	7	7	8
History	12	16	17	23	22	23	18	20	18	20
Art	4	5	4	4	4	6	7	7	6	6
Sociology	2	4	6	5	6	8	8	10	10	11
Home Economics	1	2	0	0	0	0	11	14	13	10
Divinity	3	10	5	5	6	8	7	12	27	22
Latin	0	0	0	0	0	0	1	2	1	3
Romance Languages--										
French	10	9	9	9	9	11	9	10	10	15
Italian	0	3	0	0	2	4	4	4	6	4
Spanish	7	6	7	6	8	11	10	10	11	10
German	6	4	6	11	9	8	13	7	6	9
English	23	30	34	33	29	30	28	25	26	26
Comparative Literature	1	0	0	4	4	5	5	5	3	1
Mathematics	2	4	4	4	5	6	6	9	10	8
Astronomy	1	2	2	2	2	2	2	2	2	0
Physics	1	4	4	4	6	7	8	3	3	4
Chemistry	0	0	0	0	1	0	0	3	3	7
Geology	2	0	2	2	2	2	2	1	1	1
Geography	1	3	2	1	0	0	0	0	0	3
Botany	8	10	10	10	11	11	10	9	11	8
Zoology	2	1	1	4	3	2	2	1	1	2
Physiological Chemistry and Pharmacology	0	0	0	0	0	0	0	1	2	0
Hygiene and Bacteriology	0	1	0	0	1	1	1	1	1	2
Social Service Administration	0	0	3	3	2	5	4	7	6	7
Total	126	156	168	177	189	239	238	245	250	258

*Includes two courses in Library Science (Education).

New courses.- The College provided a varied program during the ten years. Only twenty-four of the 735 different courses given during the period were scheduled each year. These were offered by eight departments--Romance Languages (9), Education (5), English (4), Botany (2), and Psychology, History, Sociology, and Physics one each.

The number of new courses offered each year by each department is given in Table VI.

This table shows that only 126 of the 735 different courses offered during the ten-year period were given in 1919-20, the remainder being added from year to year. Fifty-four per cent of the 609 new courses were scheduled by five departments, Education, History, Divinity, Romance Languages, and English. Each of thirteen other departments offered ten or more new courses during the nine years.

The plan of developing courses to meet the needs and desires of specific groups may result in the addition of more new courses in other departments, particularly in Commerce and Administration, Home Economics, Law, and Hygiene and Bacteriology. Plans have already been made to use the laboratories on the Quadrangles to a greater extent than has been done heretofore. This will make possible additional new courses in the laboratory sciences.

Public Lectures

The service provided by the Public Lecture Program, sponsored by University College, is of a non-credit character. It is offered to persons in business and in the professions who desire to keep in touch with the progressive movements that are made in their respective fields and to the members of society in general who feel the need of a broader educational background.

Extent of program.- A total of 424 lectures have been scheduled since the inauguration of this type of service, 413 of which were given. The eleven not given were on the topic, "Health and the Community." Forty-nine of the 413 were repetitions, leaving a net total of 364 different lectures that were delivered between February, 1926, and June, 1930. The themes of the lectures and the number of meetings devoted to each theme are given in Table VII.

As is shown in Table VII, the lectures may be grouped under thirty-eight themes which are classed in eight fields of thought, and a small group of miscellaneous themes. The greatest number of lectures is in the field of literature. The theme on which the greatest number of lectures was delivered is "The Nature of the World and Man" with the theme, "Creative Personalities," second. "Contemporary Literary Leaders" is third with thirty lectures.

TABLE VI

NUMBER OF COURSES OFFERED BY EACH DEPARTMENT IN UNIVERSITY COLLEGE IN 1919-20 AND NUMBER OF NEW COURSES OFFERED EACH SUCCEEDING YEAR

Department	Total No. of Different Courses Offered	Number of Courses Offered in 1919-1920	Number of New Courses Offered								
			'20-21	'21-22	'22-23	'23-24	'24-25	'25-26	'26-27	'27-28	'28-29
Education*	146	29	7	12	10	21	27	11	8	7	14
History	70	12	12	8	9	11	4	1	5	4	4
English	78	23	16	10	9	6	2	3	4	2	3
Romance Languages--											
French	33	10	2	1	3	2	3	2	3	2	5
Italian	9	0	3	0	0	0	1	1	1	2	1
Spanish	25	7	1	2	1	4	1	1	2	4	2
Divinity	52	3	8	1	2	5	6	1	7	17	2
German	39	6	4	4	5	5	4	7	0	1	3
Botany	33	8	6	4	3	3	3	1	0	4	1
Sociology	26	2	2	2	1	3	4	2	2	1	7
Mathematics*	25	2	3	3	0	2	5	4	2	2	2
Economics	27	7	6	1	0	1	5	2	0	4	1
Social Service Administration	18	0	0	3	1	0	5	2	4	3	0
Art	21	4	2	1	2	2	2	4	1	2	1
Comparative Literature	18	1	0	0	4	1	5	1	4	2	0
Home Economics	17	1	1	0	0	0	0	11	3	1	0
Political Science	14	0	0	2	1	0	3	2	3	1	2
Chemistry	13	0	0	0	0	1	0	0	3	3	6
Psychology	12	2	3	1	2	2	0	1	1	0	0
Physics	11	1	3	0	1	2	2	2	0	0	0
Other Departments[a]	48	8	4	1	5	5	5	3	5	5	7
Total[b]	735	126	83	56	59	76	87	62	58	67	61

*Two courses offered in the Education Department were also offered in the Mathematics Department--one in 1919-20 to 1923-24, and one 1922-23 to 1923-24.

[a]Includes the following departments which offered, during the nine years, the number of new courses indicated: Philosophy 8, Commerce and Administration 6, Latin 6, Geography 5, Geology 4, Zoology 4, Physiological Chemistry and Pharmacology 3, Hygiene and Bacteriology 3, and Astronomy 1.

[b]The total is the Net total.

Departments providing lecturers.- Thirty-one departments provided lecturers for the Public Lecture program, the number of lecturers from each department ranging from one to eighteen. Three departments furnished ten or more lecturers--History (18),

TABLE VII

THEMES AND NUMBER OF LECTURES GIVEN ON EACH IN THE PUBLIC LECTURE PROGRAM FROM FEBRUARY, 1926, TO JUNE, 1930

Field of Thought	Theme	Number of Lectures
Anthropology	Sites of Ancient Civilization	10
	The American Indian	5
Business and Finance	Business and Investment Forecasting	5
	Problems for the Average Investor	11
	Problems for the Individual Investor	20
	Security Speculation	6
Government	Democracy and Some of Its Competitors	10
	The Modern City	11
	The Rise of American Democracy	8
Health	Health and the Community	10
	Health and Medical Science	11
	Medicine Through the Ages	20
	Some Child Health Problems	3
History	Contemporary Italy: From Cavour to Mussolini	5
	Life and Art in the Italian Renaissance	5
	Topics from the History of Chicago	10
International Understanding	China in Revolution	5
	Economic Factors in International Relations	3
	International Relations	20
	Nineteenth-Century Poland	10
	Some Problems in International Relations	3
Literature	Approaches to Modern Literature	3
	Contemporary Literary Leaders	30
	Five Old Poems	5
	Italian Literature	5
	Leading Types of Fiction	5
	Nineteenth-Century Leaders in Literature	22
	The American Frontier in Literature	5
	The English Novel Since the War	5
Philosophy	American Emotions	5
	Great Philosophers	9
	Philosophy as a Way of Life in America	5
Miscellaneous	Creative Personalities	33
	Everyday Problems in Law	5
	Home Training Problems	3
	Nature of the World and Man	62
	Religions and Civilizations	15
	Some Spanish Types	5

Divinity (10), and English (13). Twenty-eight other departments provided from one to eight lecturers each.

Grouping the lectures according to the divisional classification used earlier, those in the Humanities Division constituted 40.4 per cent of the total, in the Biological Sciences 20.8 per cent, in the Physical Sciences 4.9 per cent, and in the Social Sciences 33.9 per cent. Here as in both the correspondence-study and class-study offerings the program is not well balanced. There are certain factors, however, that may operate to cause the program to be arranged as it has been. In the first place, the patrons of the program may attend the lectures primarily for the purpose of intellectual recreation which might explain in part the high proportion in the Humanities. Second, there is a possibility that the lectures in the Biological and Physical Sciences have not been pitched on the level of the general public.

Courses and Materials on Religious and Biblical Themes

An opportunity is offered by The American Institute of Sacred Literature to the members of society at large to become more familiar with the Scriptures and to read and study, under some guidance, materials that will help in the solution of personal religious difficulties. The work is of a non-credit nature.

Services rendered.- Six different types of service are made available: a monthly bulletin, popular religious study courses, courses for ministers, informal study courses, modern tract literature, and advisory correspondence in religious study.

The monthly publication of twenty pages, called The Institute, presents a study course on a new and vital religious theme, an editorial on some religious problem, and certain other items of interest to those working in this field.

The popular religious study courses provide an opportunity for a rapid survey or a more detailed study of a religious or Biblical theme. The topics of these courses are new and challenging to those who give thought to questions of this character. Twenty-two such courses are now available.

The courses for ministers are organized especially for persons with some knowledge of the Scriptures. Each of the thirty-nine courses carried with it an introduction and review by a specialist in the subject. Courses are offered in theology, the Bible, church history, practical work, science, fiction, poetry, all arranged with reference to the minister's interests.

The informal courses lead to certificates. Some of the work is given in connection with study courses and some with reading courses as a basis. The work of the first kind is now limited to two courses, one on "Finding God through the Beautiful" and one on "Experiments in Personal Religion." The work of the second

kind is now limited to five courses: "The Religions of the World," "Modern Preaching," "The Modern Conception of God," "Evolution and the Christian Faith," and "Psychology Today."

The modern tract literature consists of pamphlets and leaflets written on various subjects. At present there are five series, "Good Will," "Why I Believe," "Why I Do Not Believe," "Science and Religion," and "The Bible," and a miscellaneous number of subjects, with two titles in the first or "Good Will" series, nine in the second, two in the third, seven in the fourth, six in the fifth, and seven in the miscellaneous group.

The last type of service, advisory correspondence in religious study, varies according to the nature of the request that is made of the office. The attempt is made by the office staff to answer all questions of a religious character or to indicate other sources of information. In many instances books are lent for this purpose.

Departments participating.- From the nature of this type of work, as one would judge, the departments in the Divinity School are called upon for the greatest number of contributions. Other departments, however, such as English, Psychology, and the sciences furnish writers wherever a subject in their respective fields is to be presented.

Radio Programs

Two distinct types of programs are maintained by the Radio Department: (1) educational; and (2) publicity or public-relations programs. Under the first type are given the following: classroom courses, radio classes, religious services, readings, conversations, and dramatizations. Under the second type is a series of lectures entitled "News from the Quadrangles."

The Radio Program for the Winter Quarter of 1932 announces programs of each variety mentioned above. The classroom course is represented by "Colonial American Literature"; religious services by regular Sunday services conducted in the Chapel; readings by a series of poems and prose selections; conversations by "The University of Chicago Round Table" and "The Professor at the Breakfast Table"; and dramatizations by "Philosophers in Hades."

CHAPTER IV

STUDENT PERSONNEL

The characteristics of the persons who have shown an active interest in the extension program offered by the University are of significance to our analysis. The findings concerning the student personnel are presented under eight headings: sex and age, citizenship status, geographical distribution, occupational status, ability, previous training, registrations, and mortality.[1]

Sex and Age

Both men and women use the services of the extension organizations, their ages ranging from sixteen to over sixty.

The distribution of correspondence-study and of class-study students by sex and age is given in Table VIII and in Figure 1.

TABLE VIII

DISTRIBUTION, ACCORDING TO AGE-GROUPS, OF MEN AND WOMEN STUDENTS REGISTERED IN HOME-STUDY DEPARTMENT AND IN UNIVERSITY COLLEGE

Age-Group	Number Registered in					
	Home-Study Department[a]			University College[b]		
	Total	Men	Women	Total	Men	Women
16 - 20	387	233	154	104	40	64
21 - 25	697	377	320	629	170	459
26 - 30	485	235	250	482	128	354
31 - 35	430	124	306	387	100	287
36 - 40	283	91	192	300	69	231
41 - 45	189	47	142	136	39	97
46 - 50	138	40	98	101	16	85
51 - 55	77	13	64	47	7	40
56 - 60	35	9	26	18	6	12
Over 60	25	6	19	11	1	10
Age not known	551	189	362	100	19	81
Total	3297	1364	1933	2315	595	1720
Average Age	30	27	32	31	30	31

[a]Data for the students in the Home-Study Department taken from the registration blanks for the period, June 20, 1929, to March 21, 1930.

[b]Data for the students in University College taken from the questionnaires. See Appendix, Section D.

[1]The data relative to those who take advantage of the radio programs is presented under a separate heading, Radio Audience.

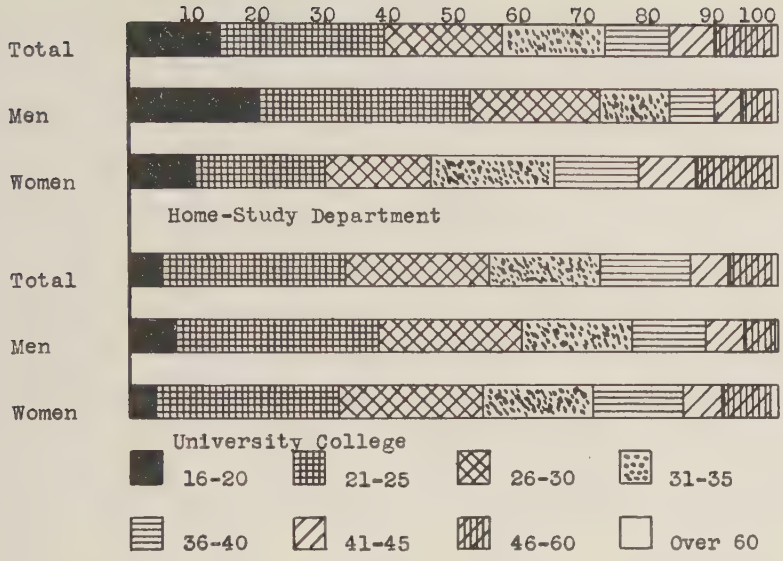

Fig. 1 - Percentage of men and women students in each age-group registered in the Home-Study Department and in University College.

A majority of these students, as Table VIII shows, are women, 59 per cent of the correspondence-study students and 74 per cent of the class-study students. The number of women taking residence courses also exceeds that of the men--women 55.5 per cent, men 44.5 per cent. Mr. Bixler reports that the distribution of graduate students, however, is in the ratio of 52 men to 48 women.[1]

The age-group, 21-25, contains the highest percentage in both organizations, 21 per cent of the correspondence-study students and 27 per cent of the class-study group. Almost one-third of the correspondence-study group are under 26 years of age and almost two-thirds are under 36 years of age; 31 per cent of the class-study group are under 26 and 69 per cent are under 36. Four per cent of the students registered in each division are over 50 years of age. The middle 50 per cent of the Home-Study group, who gave their ages, is between 22 and 39 years and of the University College group, who answered the question about age, is between 23.5 and 39 years.

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[1]Roy W. Bixler, "The Admission and Retention of Graduate Students," (An unpublished report prepared for the University Survey).

A comparison of the percentages of students in the various age-groups, as given in Figure 1, shows that proportionately more young students, those under 21, and a few more middle-aged persons, those over 46, register in Home-Study than enrol for University College work. A larger percentage of women students than of men students is in the higher age-groups both in Home-Study and in University College.

The number of women lecture patrons greatly exceeds that of the men. Approximately one-half of the audience that attended the lecture on "Business Forecasting" were women, and the number patronizing the two lectures on the "Novel" outnumbered the men by eight to one. The average age of the patrons of the public lectures, judging from those who attended three lectures, is near forty-five.[1]

The persons who are using the services of The American Institute of Sacred Literature are about equally divided between men and women.[2] There is little evidence, however, upon which to base any judgment concerning the ages of those who enrol with The Institute. The Executive Secretary estimated that most of them are between twenty and thirty years of age, but that all ages above twelve are represented.

The foregoing shows that the extension program provided by the University serves primarily mature persons. The number of middle-aged and elderly persons using the services indicates, however, that no extension organization has devised a type of general continuation program that appeals to those adults who may have completed a college curriculum or those who have dropped out of industry, business, and the professions. If the next few years see workers released at an earlier age as was the trend before the present economic depression, the whole field of continuation education for retired adults will offer an opportunity of experimenting with an extension program to meet these needs.

Citizenship Status

Practically all persons served by the extension program are citizens of the United States.

The distribution of the registrations in Home-Study from June 20, 1929, to March 21, 1930, according to citizenship status, is given in Table IX.

This table shows that over 80 per cent of the correspondence-study students are citizens of the United States. Of those who gave information on the question of citizenship, 2,776, over

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[1] Data secured in attending three lectures.

[2] Data secured from the registration cards in the office of The American Institute of Sacred Literature.

96 per cent are citizens, the percentage of men being a little lower than that of the women.

TABLE IX

DISTRIBUTION OF THE REGISTRATIONS BY MEN AND WOMEN IN THE HOME-STUDY DEPARTMENT FROM JUNE 20, 1929, TO MARCH 21, 1930, ON THE BASIS OF CITIZENSHIP STATUS

Status of Citizenship	Registrations					
	Total		Men		Women	
	Number*	Per-centage	Number*	Per-centage	Number*	Per-centage
Are citizens	2681	81	1103	81	1578	82
Are not citizens	95	3	66	5	29	1
Status not given	521	16	195	14	326	17
Total	3297	100	1364	100	1933	100

*Data taken from 3,297 "Application for Instruction" blanks.

The only information on the citizenship status of the class-study students was the country of birth which was indicated on the permanent records in the Recorder's Office. The data secured throw some light on the national and racial backgrounds of the students. Over nine-tenths, 94 per cent, of these students[1] were born in the United States; three in Hawaii, and one in the Philippines; nineteen were born in Canada, one in Cuba, nine in Asia, six in Australia, four in South America, and 174 in Europe--Russia 58, The British Isles 29, Germany 24, Sweden 11, Norway 9, Poland 9, The Netherlands 8. Eleven other European countries were represented.

There was no information available from which to determine accurately the citizenship status of the lecture patrons. As only about 5 per cent of the residents of Chicago and surrounding territory are foreigners, the inference may be made that comparatively few of the persons attending the lectures are not citizens of the United States.

The number of persons using the services of The American Institute of Sacred Literature who are not citizens is proportionately greater than in any of the preceding groups. A majority of the students enrolled for the reading courses are citizens of the United States, but a great many of the persons using the material in the pamphlets are foreigners. Hundreds of pamphlets and leaflets are sent to religious leaders in foreign countries where thousands of persons are made familiar with the contents of this

[1]Permanent record cards of the 3,432 class-study students in University College, May 10, 1930.

printed matter.[1]

Due to the fact that practically all the persons using the extension services are citizens of the United States, there is little evidence to indicate that the extension programs should be modified to meet the specific needs of foreign groups.

Geographical Distribution

The type of service rendered by each extension organization determines to a considerable extent the geographical distribution of the student personnel. The services of the Home-Study Department and of The Institute are limited only by the extent of the postal systems of the world while those of University College are available only to those who live within commuting distance and who have free time when the services are offered. The data on this problem are presented under two sub-headings, (1) correspondence students and (2) class-study students and lecture patrons.

Correspondence students.- The correspondence students are composed of two groups, those working in Home-Study or correspondence-study students, and those using the services of The American Institute of Sacred Literature.

The student body of the Home-Study Department in 1928-29 represented every state in the Union, the District of Columbia, six territories and outlying possessions of the United States (including Cuba),[2] and twenty foreign countries. Table X shows the percentage of correspondence-study students from each of the geographical divisions for each year from 1920-21 to 1928-29. Figure 2, based on this table, gives the data in graphic form. The geographical divisions are those used in the President's Reports from which the basic data were secured. The states included in each division are as follows:

North Atlantic	South Atlantic	Western
Maine	Delaware	Montana
New Hampshire	Maryland	Wyoming
Vermont	District of Columbia	Colorado
Massachusetts	Virginia	New Mexico
Rhode Island	West Virginia	Arizona
Connecticut	North Carolina	Utah
New Jersey	South Carolina	Nevada
New York	Florida	Idaho
Pennsylvania	Georgia	Washington
		Oregon
		California

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[1] Data from permanent record cards and mailing lists.

[2] Cuba is included in this group in the statistical summaries in the recent President's Reports.

TABLE X

GEOGRAPHICAL DISTRIBUTION, IN PERCENTAGES, OF THE CORRESPONDENCE-STUDY STUDENTS AND RESIDENT STUDENTS, INCLUDING THOSE IN UNIVERSITY COLLEGE, DURING THE TEN YEARS 1919-20 TO 1928-29

Year	Percentage* of Students Residing in Designated Territory											
	Division										Territories and Foreign Countries	
	North Atlantic		South Atlantic		North Central		South Central		Western			
	Correspondence Study	Resident	Correspondence Study	Resident	Correspondence Study	Resident	Correspondence Study	Resident	Correspondence Study	Resident	Correspondence Study	Resident
1919-20	-	3	-	2	-	81	-	8	-	3	-	3
1920-21	12	3	7	3	61	79	10	8	7	3	3	4
1921-22	12	3	8	3	62	79	9	9	6	3	3	3
1922-23	12	3	8	3	63	81	9	7	6	3	2	3
1923-24	12	3	8	3	64	82	9	7	5	2	2	3
1924-25	12	3	8	2	65	83	8	7	4	2	3	3
1925-26	11	3	8	2	67	82	7	7	4	3	3	3
1926-27	11	3	8	2	68	82	7	7	4	3	2	3
1927-28	10	3	8	3	67	81	8	7	4	3	3	3
1928-29	11	3	9	3	67	84	7	5	4	2	2	3

*Basic data taken from the President's Reports.

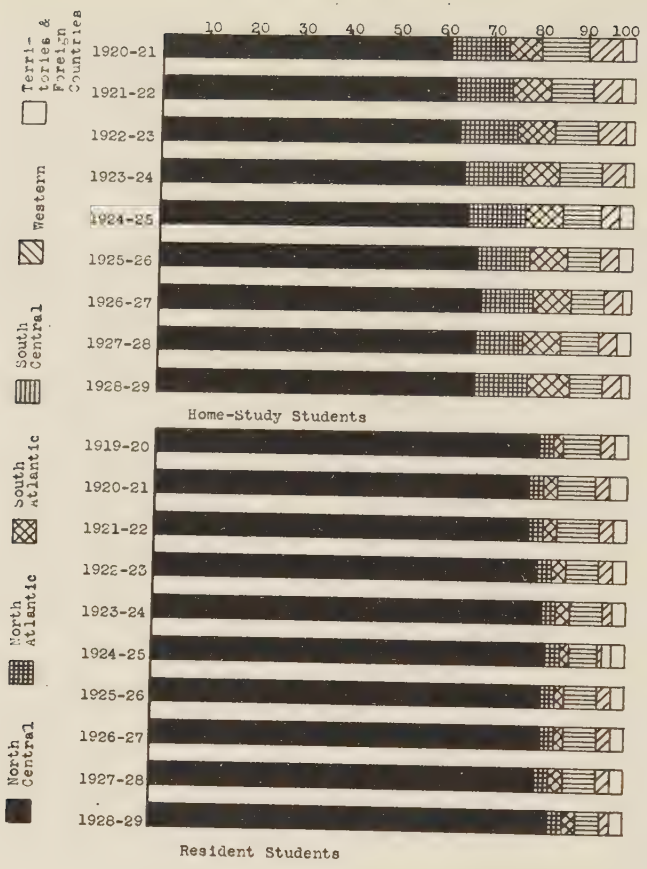

Fig. 2.- Percentage geographical distribution of the students registered in the Home-Study Department and of resident students including those in University College.

North Central	South Central	Territories and Outlying Possessions
Ohio	Kentucky	Cuba
Indiana	Tennessee	Guam
Illinois	Alabama	Hawaii
Michigan	Mississippi	Panama Canal Zone
Wisconsin	Louisiana	Philippine Islands
Minnesota	Texas	Porto Rico
Iowa	Oklahoma	
Missouri	Arkansas	
North Dakota		Foreign Countries
South Dakota		
Nebraska		
Kansas		

As is shown in Table X and Figure 2, the number of correspondence-study students from the North Central Division of states is greater than that from any other division for each year since 1920-21 when the statistics on geographical distribution were first compiled. The North Atlantic Division is second, the South Atlantic third, the South Central fourth, and the Western fifth. This has been the order of the divisions since 1925-26. Previous to this date the South Central was third and the South Atlantic was fourth.

The rank order of the divisional groups of resident students in 1928-29 was--North Central first, South Central second, North Atlantic third, Western fourth, and South Atlantic fifth. This has been the order during the ten years except in 1919-20, 1920-21, and 1922-23 when the Western division was third and the North Atlantic was fourth. Distance from the University does not affect the enrolment in Home-Study work to the extent that it does in University residence courses.

The rank order of the geographical divisions, based on the population of the several states in 1920, is--North Central first, North Atlantic second, South Central third, South Atlantic fourth, and the Western fifth.[1] Because this order varies as much as it does from that of the divisions in Home-Study, the conclusion can be made that the geographical distribution of the population is not a very prominent factor in determining the location of the registrants in the Home-Study Department.

The tendency has been for the percentages of students registering in Home-Study from the North Central and South Atlantic divisions to increase while the percentages of those registering from all the other divisions, including the foreign countries, have decreased during the ten years. The decrease in these divisions may be due to the expansion of correspondence-study work in local institutions, six institutions, members of the National Extension Association, having inaugurated correspondence-study work during the last four years.[2] The percentages of resident students have remained fairly constant.

The geographical distribution by mile-groups of the correspondence-study and resident students in 1928-29 is given in Table XI. The data are presented graphically in Figure 3.

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[1] Population, Vol. I, Fourteenth Census of the United States, Taken in the Year 1920, Bureau of the Census, Department of Commerce (Washington: Government Printing Office, 1921), p. 16.

[2] Information received from Mr. W. S. Bittner, Secretary, National University Extension Association.

As Table XI and Figure 3 show, 25 per cent of the correspondence-study students were from Chicago and 44 per cent were from the two states, Illinois and Indiana. Over one-half of this territory lies within 200 miles of Chicago. Sixty-eight per cent lived in eleven states: Illinois, Indiana, Wisconsin, Ohio, Michigan, Iowa, Missouri, Kentucky, Minnesota, Tennessee, and West Virginia. Over one-half of each of these states lies within 500 miles of Chicago. Only 3 per cent of all the students registered in Home-Study lived outside continental United States.

TABLE XI

DISTRIBUTION BY MILE-GROUPS OF CORRESPONDENCE-STUDY STUDENTS AND RESIDENT STUDENTS, INCLUDING THOSE IN UNIVERSITY COLLEGE, DURING THE YEAR, 1928-29

Mile-Group	Number[a] and Percentage of Students[b]			
	Correspondence-Study Students		Resident Students (including Those in University College)	
	Number	Percentage	Number	Percentage
In Chicago	1564	25	6656	46
200 miles	2753	44	9405	65
300 miles	3635	58	10534	72
400 miles	4009	64	11432	79
500 miles	4251	68	11767	82
750 miles	5390	87	13215	92
1,000 miles	5841	94	13747	95
1,250 miles	5896	95	13812	96
1,500 miles	5932	95	13895	96
1,750 miles	6066	97	14055	97

[a]Data from the President's Reports.

[b]Students who resided in states at least one-half the area of which is included within the indicated number of miles of Chicago.

These figures may be compared with those for the resident students for the same year. Almost one-half of the resident students lived in Chicago and approximately two-thirds were from Illinois and Indiana. Over four-fifths were in the 500-mile group, the eleven states named above. Here, as in the Home-Study Department, 3 per cent came from outside of continental United States. Approximately one-half of the foreign students, both in the Home-Study Department and in the University residence classes, were from Canada.

Even though distance need not affect the enrolments for correspondence-study work, the Home-Study Department may be considered more or less a local institution since 68 per cent of the students reside within 500 miles of the University.

The services of The American Institute of Sacred Literature

extend to practically all parts of the world. In 1928-29, 7 per cent of those using The Institute materials represented twenty-one foreign countries. Those persons in the United States registered with The Institute are fairly evenly distributed over the entire country.

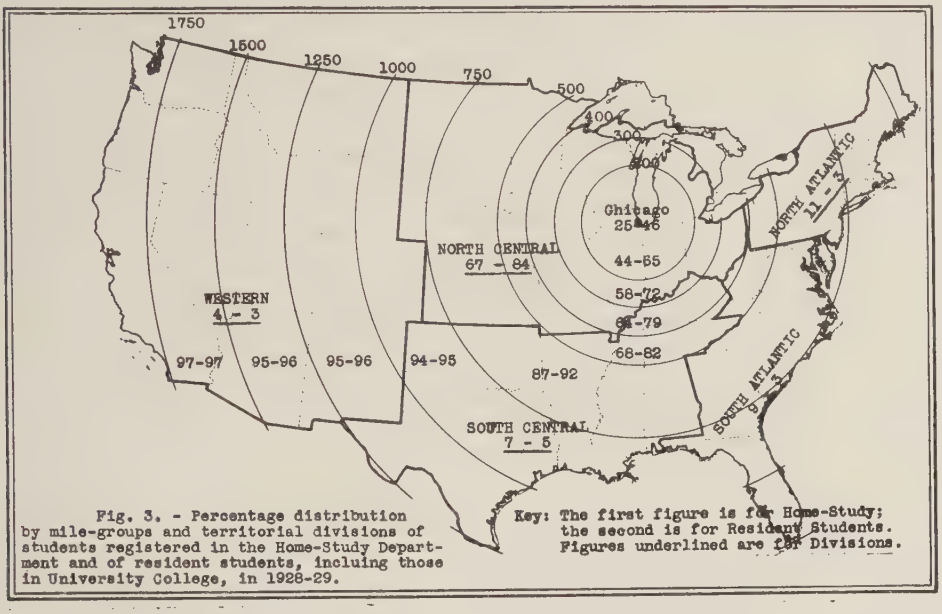

Fig. 3. - Percentage distribution by mile-groups and territorial divisions of students registered in the Home-Study Department and of resident students, including those in University College, in 1928-29.

Key: The first figure is for Home-Study; the second is for Resident Students. Figures underlined are for Divisions.

The difference between the geographical distribution of the Home-Study students and that of the persons using the services of The American Institute of Sacred Literature indicates a significant difference between the characteristics of the programs offered by these extension organizations. The program of the Home-Study Department, in so far as titles of courses are concerned, may be found duplicated by a number of the extension programs offered by other institutions of higher learning. The program provided by The Institute is unique--no other institution of higher education in the entire country offers work of this character. The time was when the correspondence-study program of the University occupied a unique position, but no longer. From a position of leadership in this field, the Home-Study Department has become one of many offering this type of service.

Class study students and lecture patrons.- It has been pointed out that students who attend the University College classes and the patrons of the public lectures sponsored by University College are limited to those who are within commuting distance of the class- and lecture-rooms and who have free time when the classes and lectures are given. As was stated in an earlier

chapter, the classes are held at 4:15 and 7:00 on Monday, Tuesday, Wednesday, Thursday, and Friday and at 9:00 and 11:00 on Saturday. The lectures are at 6:45 to 7:45 in the evening, usually on Tuesday, Wednesday, and Thursday.

Although no data are available on the geographical distribution of the lecture patrons, it may be assumed that the great majority live in or near Chicago. Two aspects of the geographical distribution of the class-study students were studied: (1) the distance that the students lived and (2) the distance that they worked from the University College classrooms. Table XII and Figure 4 give the distribution of the students on these bases.

TABLE XII

DISTRIBUTION OF CLASS-STUDY STUDENTS IN THE AUTUMN AND WINTER QUARTERS OF 1929-30 ACCORDING TO THE DISTANCE THEY LIVED AND WORKED FROM THE COLLEGE CLASSROOMS

Miles	Number* and Percentage of Students Who			
	Lived at Designated Distances from the Classrooms		Worked at Designated Distances from the Classrooms	
	Number	Percentage	Number	Percentage
0 - 5	303	13	636	28
6 - 10	934	40	591	25
11 - 15	337	15	258	11
16 - 25	174	8	130	6
26 - 50	99	4	70	3
Over 50	27	1	12	1
Not given	441	19	618	26
Total	2315	100	2315	100

*Data from questionnaires. See Appendix, Section D.

The average distance that the students lived from the downtown quarters of the College is approximately eleven miles, twelve miles for the men and ten miles for the women. There is little variation in average distance for the students registered on the various levels, unclassified, junior-college, senior-college, and graduate, except that the graduate students lived at a little greater distance.

The average distance that the students worked from the College classrooms is approximately 8.5 miles. Had this information been known for all these students, this number, 8.5, might have been somewhat different. It is interesting to note that 1 per cent lived over fifty miles and a little less than 1 per cent worked over fifty miles from the classrooms. Class-study students, in going to and from their classes, traveled on the average at least twenty-two miles each class day.

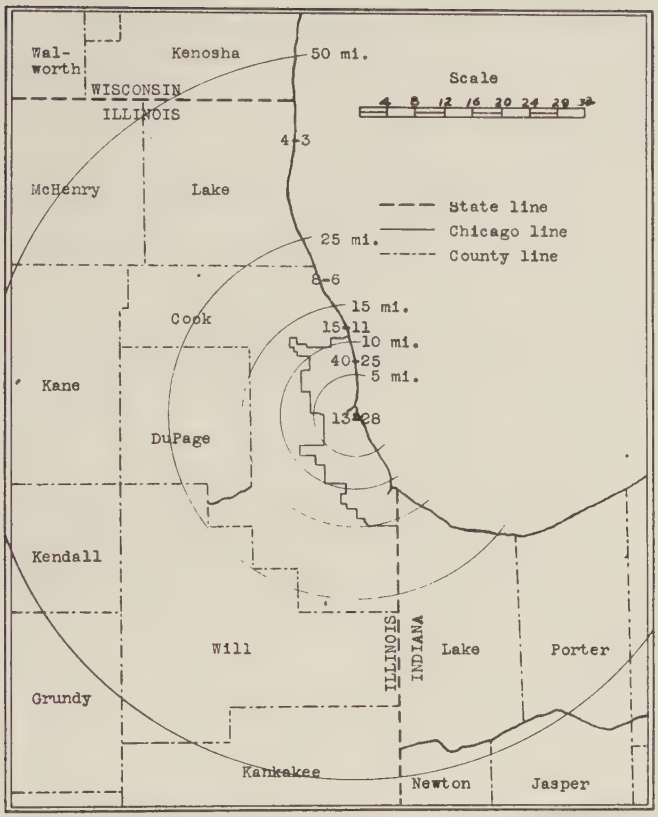

Fig. 4.- Percentage geographical distribution of University College students of the Autumn and Winter Quarters of 1929-30. (The first figure indicates the percentage living the distance given from the downtown quarters, the second figure indicates the percentage working the distance given from the downtown quarters; e.g., 13-28 means that 13 per cent lived 0-5 miles and 28 per cent worked 0-5 miles from the college classrooms.)

The transportation problem seems to be a factor that affects to some extent the number of registrations, although those who lived at the greater distances did not emphasize this any more than did the others. Over one-third stated that they would take more work if the problem of transportation did not have to be considered, while almost three-fifths said that distance did not have any influence on the number of courses for which they registered.

Occupational Status

In determining the occupational status of the students, a list of occupations was made from the 1920 report of the Bureau

of Census.[1] (When these data were obtained the list used in the 1930 census had not been formed, but the Bureau, in reply to an inquiry sent by the writer, stated that the 1930 list would be practically the same as that used in 1920.) The final list, used in this investigation, is found in Appendix, Section D.

The percentage distribution according to occupational groups of the correspondence-study and class-study students is given in Table XIII.

TABLE XIII

PERCENTAGE DISTRIBUTION ACCORDING TO OCCUPATIONAL GROUPS OF 3,297 CORRESPONDENCE-STUDY STUDENTS AND 2,315 CLASS-STUDY STUDENTS

Occupational Group	Percentage of Students in Each Occupational Group*					
	Men		Women		Total	
	Correspondence-Study	Class-Study	Correspondence-Study	Class-Study	Correspondence-Study	Class-Study
Agriculture, extracting minerals, building trades, manufacturing, transportation, trade, and public service	14	16	1	1	6	5
Professional service other than school work and trained engineers	8	16	6	13	8	14
School work:						
Teachers	20	25	61	53	43	45
Other school officers	5	12	1	9	3	10
Students	34	2	15	2	23	2
Trained engineers	5	11	0	0	3	3
Other occupations	14	18	16	22	14	21
Total	100	100	100	100	100	100

*Data for correspondence-study students secured from the 3,297 "Application for Instruction" blanks sent in between June 20, 1929, and March 21, 1930.

Data for class-study students secured from the 2,315 questionnaires that were returned by the students of the Autumn and Winter Quarters of 1929-30. See Appendix, Section D.

[1] Population, Vol. IV, Fourteenth Census of the United States Taken in the Year 1920, Bureau of the Census, Department of Commerce (Washington: Government Printing Office, 1923), pp. 35-43.

Figure 5 presents in comparative form the percentages of those in school work, the other professions, and other occupational groups.

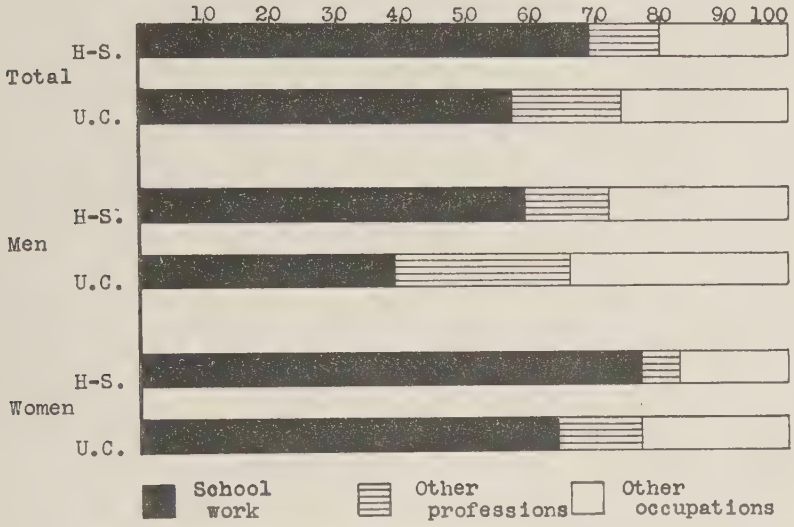

Fig. 5.- Percentage distribution of correspondence-study and of class-study students in three occupational groups. (H-S = Home-Study or correspondence-study students; U.C. = University College or class-study students.)

Table XIII and Figure 5 show that four-fifths of the correspondence-study students and almost three-fourths of the class-study students are engaged in some type of professional service. Over one-half of the students are either in the teaching profession or attending residence classes in some institution. A smaller percentage of the men than of the women in both extension organizations are in the educational profession, but more class-study than correspondence-study students are employed in other professions.

Only an estimate concerning the occupational status of students registered with The American Institute of Sacred Literature could be secured. The Executive Secretary stated that approximately 11 per cent of those using the services are ministers, 4 per cent college teachers, and 3 per cent Y.M.C.A. and Y.W.C.A. workers. The majority of the remainder of the men are from other professional and business fields and of the women from non-professional occupations.

There are no available data to show the occupational status of the lecture patrons.

Available time for extension study.- Another factor to be taken into account in the consideration of the student personnel is the amount of time available to them for study. Obviously much of the time of most extension students is used in connection with their employment and of extension class-students in traveling to and from classes. A study of the occupational load and traveling time of the class-study students shows that the average student spends 9.6 hours per day in his employment, 52.8 hours per week of 5½ days, and 633.6 hours in twelve weeks; that he uses 2.4 hours per week in traveling if the class meets twice weekly and 28.8 hours in twelve weeks--a total of approximately 662 hours per quarter.

In a study made by a University Faculty-Student Committee of which Professor Millis was chairman, it was shown that the "typical (undergraduate) student (on the Quadrangles) carrying three majors spends 12 hours (the median) per week per course in preparation and class attendance."[1] The median number of hours per week used in employment by those who were gainfully employed and who carried three majors is 18.3.[2] The average number of hours per week spent in traveling by commuters, those who lost "more than 0.5 hours per day and 2.5 hours per week in traveling to and fro while attending college," is 7.1.[3] According to this report, if the average Quadrangles student who works at some gainful employment and who is a commuter spends the average amount of time in studying three majors, he spends approximately 737 hours on these three activities per quarter.

The difference between the 737 hours used by the student on the Quadrangles who carries three majors and spends the average amount of time in studying, is gainfully employed, and is a commuter, and the 662 hours used by the class-study student in his employment and traveling gives the latter 75 hours for study and class time. Assuming that he is carrying but one major, this 75 is in contrast with the 144 hours per major used for study each quarter by the average student on the Quadrangles. But it may be doubted whether a student who spends so much time in his employment and in traveling uses 144 hours per major per quarter in study.

If the average class-study student spends 144 hours per quarter on each major, 806 hours per quarter will be consumed in

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[1] H. A. Millis and Others, Report of the Faculty-Student Committee on the Distribution of the Students' Time (Chicago: The University of Chicago Press, Jan., 1925), p. 9.

[2] Ibid., p. 23. (Computed from Table IX by the writer.)

[3] Ibid., p. 25. (Computed by the writer from the data given.)

his employment, travel, and University College class work. This would be equivalent to 67 hours per week or approximately 11 hours per day for a six-day week. If a student of average ability carried two majors in the College, he would require a total of 950 hours per quarter, 79 hours per week, or 13 hours per day.

In spite of the fact that class-study students may be expected to devote a portion of their time to home, social, civic, and religious duties, it seems that they could find sufficient time to do work of an average quality in one or two courses. Before students are permitted to register for three majors, the Dean becomes familiar with their occupational loads and approves three majors only if the conditions warrant it.

Ability of Extension Students

There are no available objective measures of the ability of extension students as they are not required to take the intelligence examinations. There are, however, two measures that throw some light on the question: (1) the relative ability of extension and resident students, as measured by the grades received when working under comparable conditions; and (2) the relative homogeneity of extension and resident groups of students.

When correspondence-study students come to the Quadrangles to work the difference between the mean quality of their undergraduate work and of all undergraduate work on the Quadrangles is .41 ± .015 grade points in their favor; when class-study students come to the Quadrangles and work the difference between the means of their undergraduate work and all undergraduate work on the Quadrangles is .52 ± .02 in their favor. When extension students come to the Quadrangles to do graduate work the differences between the means of the grades received by correspondence-study students and by class-study students and the mean of the grades of all graduate work done on the Quadrangles are .10 ± .047 and .11 ± .03, respectively. Both differences are small, but both are against the work done by extension students who do graduate work on the Quadrangles. Obviously the first, .10 ± .047 is not significant statistically. The second, .11 ± .03, might be considered significant by some. Professor Spearman says,

> "The reader may be reminded that an experimental value should be at least three times larger than its probable error before it can be taken even as suggestive, and it must be five times greater before its evidence can be deemed conclusive."[1]

Holzinger states that, "This range (4 P.E.) is the usually ac-

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[1] C. Spearman, Abilities of Man (New York: The Macmillan Co., 1927), p. 295n.

cepted zone of safety,"[1] in his discussion of the probable error of the mean.

Another measure that is used is the homogeneity of the groups as indicated by the standard deviation (S.D.) or the square root of the means of the squares of the deviations from the average. The higher the deviation, the lower is the homogeneity. The most comparable standard deviations are (1) of grade points issued by teachers who taught the same courses both in Home-Study and on the Quadrangles and (2) by teachers who taught the same courses both in University College and on the Quadrangles; (3) of the grades received by students who studied in the same departments both in Home-Study and on the Quadrangles and (4) by students who studied in the same departments both in University College and on the Quadrangles. These measures of dispersion are given in the following tabulation:

S.D. of grade points issued by instructors in courses that were taught

1. Both in Home-Study and on the Quadrangles — H-S. = 1.53 ± .033 Quad. = 1.74 ± .019
   The difference = .21 ± .028
2. Both in University College and on the Quadrangles — U.C. = 1.56 ± .020 Quad. = 1.68 ± .019
   The difference = .12 ± .028

S.D. of grade points received by students in departments in which they worked

3. Both in Home-Study and on the Quadrangles — H-S. = 1.36 ± .019 Quad. = 1.73 ± .015
   The difference = .37 ± .024
4. Both in University College and on the Quadrangles — U.C. = 1.56 ± .017 Quad. = 1.61 ± .017
   The difference = .05 ± .024

The correspondence-study and class-study groups are a little more homogeneous than are the Quadrangle groups, but the difference in any comparison is not over .37 grade point. The most homogeneous group is that composed of students who studied in the same departments, both in Home-Study and on the Quadrangles.

Previous Training

The training of the student personnel prior to registering for extension work reveals to some extent the types of persons served by the extension program. No data were available that would indicate the previous training of the lecture patrons. However, it may be assumed with some degree of accuracy that many

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[1] Karl J. Holzinger, Statistical Methods for Students in Education (Boston: Ginn and Co., 1928), p. 234.

persons who attended the lectures were college trained and that a greater number were high-school graduates. Judging from the information received from the Executive Secretary of The Institute it may likewise be assumed that many of the persons using the services of this organization were college trained or were attending college.

The previous training of the correspondence-study and class-study students is analyzed on three bases, high-school training, attendance at higher institutions, and degrees received in higher institutions.

High-school training.- Table XIV gives the number and percentage of the correspondence-study and class-study students who were high-school graduates.

TABLE XIV

DISTRIBUTION OF CORRESPONDENCE-STUDY AND CLASS-STUDY STUDENTS ON THE BASIS OF HIGH-SCHOOL GRADUATION

High-School Training	Correspondence-Study Students		Class-Study Students	
	Number[a]	Percentage	Number[b]	Percentage
Graduates	948	89	2125	92
Not graduates	26	2	80	3
Training not known	90	9	110	5
Total	1064	100	2315	100

[a]Data from Home-Study "dead files" for the period from June 20, 1929, to March 21, 1930.

[b]Data from questionnaires returned by 2,315 students registered in University College in the Autumn and Winter Quarters of 1929-30. See Appendix, Section D.

As this table shows, approximately 90 per cent of each group are high-school graduates. Had the information for all the students been given, the percentages would no doubt have been larger.

Of the class-study group, a higher percentage of the men than of the women are not graduates of high school, 8 per cent of the former and 2 per cent of the latter.

The kind and size of secondary school from which the students had been graduated are of significance. Table XV shows the distribution of class-study students according to kind of high school and Table XVI gives the number and percentage according to the size of high school from which they were graduated.

Table XV shows that two-fifths of the class-study students who were high-school graduates were from public high schools in Chicago and that a little over two-fifths were from public high schools out of Chicago.

TABLE XV

DISTRIBUTION OF CLASS-STUDY STUDENTS WHO WERE HIGH-SCHOOL GRADUATES ACCORDING TO KIND OF HIGH SCHOOL FROM WHICH THEY WERE GRADUATED

Kind of High School	Number and Percentage of High-School Graduates from Each Kind of School	
	Number	Percentage
Public high school outside of Chicago	960	45
Private high school and academy	316	15
Chicago public high school	849	40
Total	2125*	100

*Eighty of the 2,315 class-study students who returned questionnaires were not high-school graduates; 110 of them did not indicate whether or not they were graduates.

TABLE XVI

DISTRIBUTION OF CLASS-STUDY STUDENTS WHO WERE HIGH-SCHOOL GRADUATES ACCORDING TO THE SIZE OF HIGH SCHOOL FROM WHICH THEY WERE GRADUATED

Size of High School	Number and Percentage of High-School Graduates from Each Size of High School	
	Number	Percentage
0 - 49	147	7
50 - 99	196	10
100 - 199	263	13
200 - 299	201	10
300 - 499	272	13
500 - 999	265	13
1000 up	699	34
Total	2043*	100

*Eighty-two of the 2,125 students who were high-school graduates did not indicate the size of the high-school from which they were graduated.

The median size of high school, as Table XVI indicates, from which these 2,043 students were graduated is 460. A little over one-third are from high schools with enrolments of 1,000 or above and approximately one-half are from high schools of less than 500 enrolment. When it is recalled that the average age of these students is 30.6 years, and when the fact is taken into consideration that 87 per cent were graduated from secondary schools that had an enrolment of 500 or above at the time of graduation, the conclusion may be made that almost one-half were graduated

from high schools located in the larger cities.

The significance of the kind and size of high schools from which students are graduated is indicated to some extent by studies made by the Illinois High-School Visitor. Mr. A. W. Clevenger[1] found that the records made by freshmen in the University of Illinois in 1928-29 were about the same regardless of the size of high school from which they came. There was a slight difference in favor of the students from high schools with an enrolment of 2,001 to 3,000, the median record of these being about one per cent (University grades) above the medians of those from other sizes of high schools.

In a report of the High-School Visitor for the years 1919-23, Mr. Hollister says:

> "4. Graduates from the group of smallest high schools fail on the average in about twice as many hours as graduates of the largest high schools although the records show that for schools above 100 enrolment the average number of hours failed per student entered is fairly constant.
>
> "7. The records of Freshmen failing at the University of Illinois show that the graduates of small schools (up to 300 enrollment) exhibit a wider range of ability as measured by the average number of hours failed than the graduates of high schools above 300 enrollment.
>
> "8. The Table giving the per cent of graduates of Illinois accredited high schools who fail in some subject or subjects during their Freshman year indicates that, in general, the larger the school the smaller is the per cent of failure."[2]

According to Mr. Hollister's report, in the period from 1919 to 1923 freshmen from high schools with over 300 in enrolment failed less often than those from smaller high schools. It will be recalled that the average age of the University College students in 1929 was 30.6 years, hence in 1919 to 1923 the average age of these students was from 20.6 to 24.6 years. As over one-half of the class-study students came from high schools with an enrolment of 300 or above, we may conclude that according to the criterion, size of high school, the student body of University College is capable of average or above average achievement.

Mr. Clevenger's study shows also that the average grade made in 1928-29 by Freshmen coming from public high schools is

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[1] A. W. Clevenger, High School Visitor, University of Illinois (Unpublished report, 1930).

[2] Horace A. Hollister, Report of the High School Visitor, University of Illinois Bulletin, XXI, No. 46 (Urbana, Illinois: University of Illinois, 1924), p. 11.

1.11 per cent (University grades) above the average grade made by Freshmen from private secondary schools. Since only 13.6 per cent of the students in University College come from private high schools, one may conclude from the factor, public or private high school, that the University College student body is above the average of college students in general.

Training in higher institutions.- Table XVII gives the number and percentage of correspondence- and class-study students who had attended a higher institution of learning.

TABLE XVII

DISTRIBUTION OF CORRESPONDENCE-STUDY AND CLASS-STUDY STUDENTS WHO HAD ATTENDED A HIGHER INSTITUTION OF LEARNING ACCORDING TO THE NUMBER OF YEARS SPENT IN A HIGHER SCHOOL

Years Attended	Number and Percentage of Students Who Had Attended a Higher Institution			
	Correspondence-Study Students		Class-Study Students	
	Number	Percentage	Number	Percentage
.1 - 2.0	259	29	283	15
2.1 - 3.0	172	19	461	24
3.1 - 4.0	213	23	504	27
4.1 - 4.5	133	15	248	13
4.6 - 5.0	44	5	139	7
5.1 - 5.5	54	6	127	7
5.6 - 6.0	7	1	138	7
6.1 - 6.5	6	1	0	0
6.6 - 7.0	6	1	0	0
Total	894[a]	100	1900[b]	100

[a]894 of the 1,064 students in Table XIV had attended a higher institution.

[b]1,900 of the 2,315 students in Table XIV had attended a higher institution.

Only 894 of the 1,064 correspondence-study students and 1,900 of the 2,315 class-study students had attended higher institutions before enroling for extension work. As Table XVII shows, 42 per cent of these 894 correspondence-study students and 51 per cent of these 1,900 class-study students had spent from two to four years in a college or university before entering upon extension study. The average number of years spent by the correspondence-study students in a higher institution is three and by the class-study students a little over three.

Degrees received.- Another measure of previous training is the degrees received by the students. A little over one-third of the Home-Study and a little less than two-fifths of the University College sampling held degrees when they registered for exten-

sion work. Table XVIII shows the distribution of the students according to the degrees held.

TABLE XVIII

DISTRIBUTION OF 894 CORRESPONDENCE-STUDY STUDENTS AND OF 1,900 CLASS-STUDY STUDENTS ACCORDING TO DEGREES RECEIVED

Degrees Received	Number and Percentage of Students Who Had Received Degrees			
	Correspondence-Study Students		Class-Study Students	
	Number	Percentage	Number	Percentage
Baccalaureate*	264	29.5	674	35.5
LL.B.	5	.6	21	1.1
B.D.	5	.6	4	.2
Master's	56	6.3	126	6.7
M.D.	2	.2	1	.1
J.S.D.	0	.0	2	.1
Ph.D.	2	.2	5	.2
Other degrees	4	.4	34	1.8
No degree	556	62.2	1033	54.3
Total	894	100.0	1900	100.0

*Includes A.B., B.S., Ph.B., B.B.A., and B.M.

Table XVIII shows that of the students who had attended higher institutions of learning, a little less than one-third of the correspondence-study and a little over one-third of the class-study students had received a Bachelor's degree. A little over 6 per cent of each group had received a Master's degree while over one-half had received no degree.

On the basis of previous training, the typical correspondence-study student was a graduate of high school and had attended a higher institution approximately three years; the typical class-study student was a graduate of a high school with an enrolment of 460 pupils and had attended a higher institution approximately three and one-half years.

Registrations

The extent to which the activities of the extension program are used is shown by the number of different persons enroling for the various services and the number of registrations made by each person.

Correspondence- and class-study.- The proportion of students who matriculate through the Home-Study Department and University College presents an item of interest. The number of matriculants in each organization each year from 1919-20 to 1928-29 and the percentage these matriculants are of the total number entering the University for the first time are given in Table XIX.

As is seen in Table XIX, an average of over one-third of

the new students who matriculated in the University during the ten years did so through these two extension organizations. The average number matriculating through Home-Study each year during the ten years, 1919-20 to 1928-29, is 1,652 or 25 per cent of the matriculants, and the average number matriculating through University College each year for the same period is 818 or 12 per cent of the total number of new students.

TABLE XIX

NUMBER OF STUDENTS WHO MATRICULATED THROUGH HOME-STUDY DEPARTMENT AND THROUGH UNIVERSITY COLLEGE IN EACH OF THE TEN YEARS, 1919-20 TO 1928-29, AND THE PERCENTAGE EACH NUMBER IS OF THE TOTAL NUMBER MATRICULATING IN THE UNIVERSITY EACH YEAR

Year	Number of Matriculants*			Percentage of Total Matriculation in the University	
	Total in University	In Home-Study	In University College	By Home-Study Students	By University College Students
1919-20	6829	1639	628	24	9
1920-21	5942	1545	692	26	12
1921-22	7152	1788	583	25	8
1922-23	7045	1551	669	22	9
1923-24	6704	1810	983	27	15
1924-25	6528	1893	1013	29	16
1925-26	7426	2005	957	27	13
1926-27	6688	1544	871	23	13
1927-28	6547	1344	892	21	14
1928-29	6004	1398	891	23	15
Average	6686.5	1651.7	817.9	24.7	12.2

*Data from President's Reports and Secretary of Home-Study Department and Dean of University College.

The foregoing figures do not mean, however, that these two extension organizations carry teaching loads in proportion to the number of matriculants. The teaching loads of these organizations, on the basis of student majors of credit, are more nearly 12 per cent and 11 per cent, respectively, of the total University teaching load.

Nor do the figures in columns four and five in Table XIX indicate the extent to which these extension organizations act as "feeders" for the residence classes. Percentages, based on a sampling of students who have studied in residence and who have received Bachelor's degrees from the University, show (1) that approximately 4 per cent of the resident students made their first contacts with the University through the extension organizations, 1.9 per cent in Home-Study and 2.3 per cent in University College; and (2) that almost 7 per cent of those who have received a Bachelor's degree from the University began their University work in

extension, 2.4 per cent in Home-Study and 4.3 per cent in University College. In other words, judging from this sampling, the chance of receiving a Bachelor's degree is greater among students who begin their work in extension than among those who begin in residence.

The correspondence-study work was begun in 1892-93 and the class-study courses were first offered in 1900-01. The Home-Study Department began with the modest enrolment of eighty-two students with ninety-three registrations. The enrolment in University College in 1902-03, the first year for which data are available, was 466 different students with 572 registrations. Figures 6 and 7 show the number of different students and registrations in Home-Study and in University College for each of the ten years, 1919-20 to 1928-29.

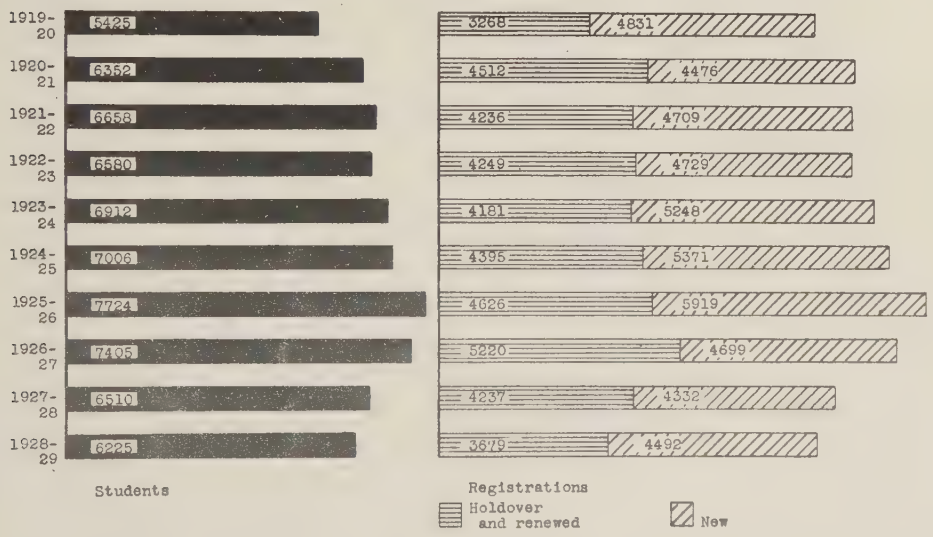

Fig. 6.- Number of students and registrations in the Home-Study Department in each of the ten years, 1919-20 to 1928-29.

As Figure 6 shows, the number of correspondence-study students increased rapidly until it reached the peak in 1925-26 with 7,724 different students and 10,545 registrations. Since that date both have gradually decreased.

The number of different class-study students and the number of registrations in University College gradually increased during the ten years. In the two years, 1926-27 and 1927-28, the number of students was a little less than in 1925-26; in the three years, 1925-26 to 1927-28, the number of registrations was a little less than in 1924-25; but in 1928-29 the numbers both of students and registrations were a little greater than in any preceding year.

During the ten years, the number of students and the number of registrations increased approximately 20 per cent.

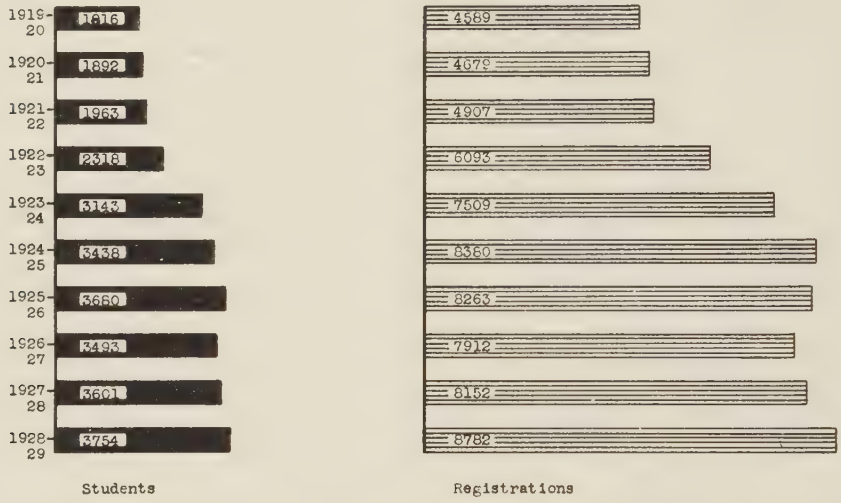

Fig. 7.- Number of students and registrations in University College in each of the ten years, 1919-20 to 1928-29.

The average number of registrations made by correspondence-study students each year during the ten years is 1.3 and of the class-study students 2.4.

The distribution of class-study students on the various levels is given in Table XX.

It is significant that the percentage of unclassified students has decreased during the ten years while the proportions of senior-college and graduate students have increased, as Table XX shows. The percentage of junior-college students has remained practically the same during the period. This change may be accounted for, in part at least, by three factors: (1) the number of unclassified students is less due to the requirements of local school boards that the teachers receive degrees if they are to be promoted to high-school positions; (2) the number of senior-college and graduate students is increasing because, in the Chicago public schools, all elementary teachers must have had two years of training and all high-school teachers must have received a Bachelor's degree before entering upon their work; and (3) the number attending local Junior Colleges is increasing.

The enrolments for the various quarters in University College is a matter of importance. Table XXI gives the enrolment during the different quarters throughout the ten years.

TABLE XX

DISTRIBUTION OF CLASS-STUDY STUDENTS ON THE VARIOUS LEVELS DURING THE TEN YEARS, 1919-20 TO 1928-29

Year	Number* and Percentage of Students Registered on Each Level								Total
	Unclassified		Junior-College		Senior-College		Graduate		
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	
1919-20	874	48	265	15	325	18	352	19	1816
1920-21	930	49	263	14	359	19	340	18	1892
1921-22	894	46	248	13	439	22	382	19	1963
1922-23	928	40	288	12	607	26	495	22	2318
1923-24	1290	41	382	12	762	24	709	23	3143
1924-25	1326	39	458	13	851	25	803	23	3438
1925-26	1180	32	525	14	1024	28	951	26	3680
1926-27	902	26	466	13	1102	32	1023	29	3493
1927-28	913	25	510	14	1115	31	1063	30	3601
1928-29	939	25	493	13	1180	32	1142	30	3754
Average	1017	37	390	13	776	26	726	24	2909

*Data from President's Reports.

TABLE XXI

REGISTRATION IN UNIVERSITY COLLEGE BY QUARTERS DURING THE YEARS, 1919-20 TO 1928-29, AND THE PERCENTAGE THE SPRING ENROLMENT IS OF THE WINTER ENROLMENT

Year	Number of Registrations*			Percentage Spring Enrolment is of Winter
	Autumn	Winter	Spring	
1919-20	1198	1266	1056	83
1920-21	1298	1360	964	70
1921-22	1363	1332	1054	79
1922-23	1641	1620	1323	82
1923-24	2017	2083	1715	82
1924-25	2388	2345	1719	73
1925-26	2435	2365	1831	77
1926-27	2198	2247	1859	86
1927-28	2468	2336	1783	77
1928-29	2520	2462	1931	78

*Data from the Dean of University College.

This table shows that, as a rule, the number of registrations is about the same in the Autumn and Winter Quarters but that the number in the Spring Quarter is considerably less than in the preceding quarters. One possible cause for the reduction of the Spring Quarter enrolment is that many of the students in the other quarters are teachers who find their teaching activities so heavy

during the spring that they cannot take on additional work. If the Spring Quarter enrolment could be held up to the other figures, the overhead expense could be reduced.

The distributions, by departments, of the registrations in Home-Study and in University College for the years 1919-20 and 1928-29 are given in Figures 8 and 9. Figure 8 does not include the Department of Comparative Philology in which there were three registrations in 1928-29; and Figure 9 does not include the departments of Latin and Geology in which there were fourteen and thirty-seven registrations, respectively, in 1928-29.

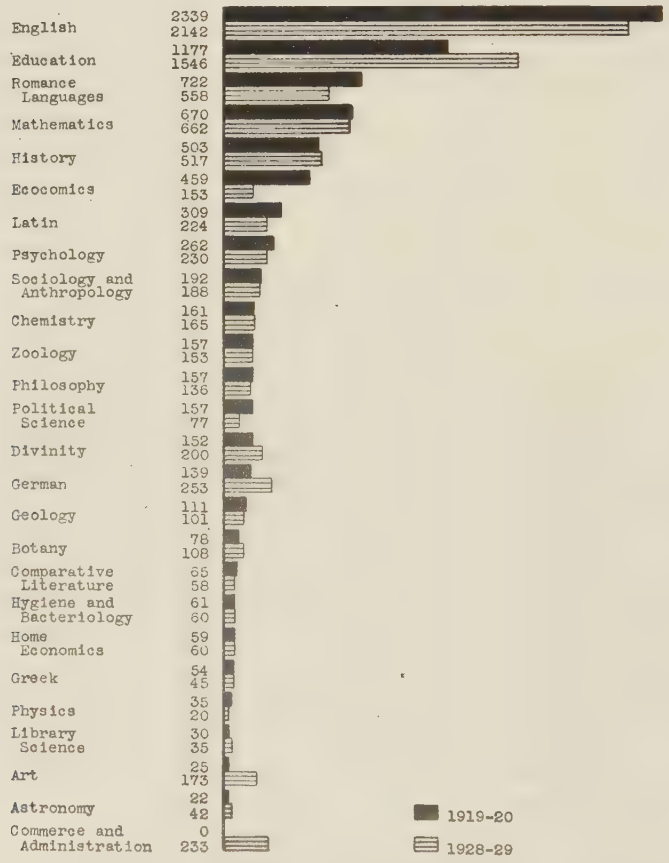

Fig. 8.- Distribution by departments of registrations in Home-Study in 1919-20 and in 1928-29.

Although thirty departments offered work in Home-Study and twenty-seven in University College during the ten years, 1919-20 to 1928-29, the majority of registrations are in comparatively few departments, as is indicated in Figures 8 and 9 for the first and last years of the period. The registrations in the intervening

years vary some from the trends revealed in these Figures, more so in Home-Study than in University College.

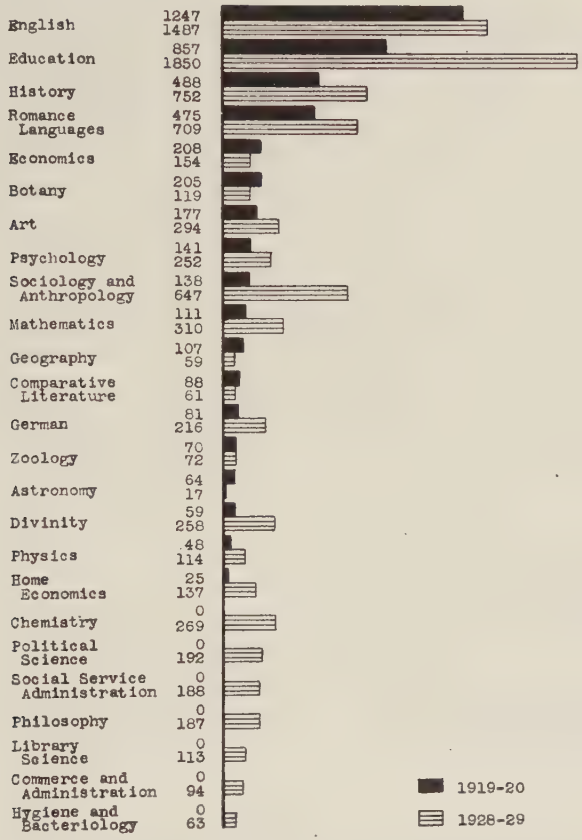

Fig. 9.- Distribution by departments of registrations in University College in 1919-20 and in 1928-29.

Over the ten-year period, the number of registrations in Home-Study decreased in fifteen departments and increased in twelve, including Comparative Philology, not given in Figure 8. The departments showing the most marked decreases are Economics, Political Science, Physics, Latin, Romance Languages, and Psychology. The reader should be reminded that in 1919-20 some courses, later given by Commerce and Administration, were offered by Economics. If the numbers of registrations in these two departments are combined, the decrease in the number of registrations for this type of work is much less than implied in the preceding sentence. Only four departments, Education, German, Art, and Astronomy, (omitting Commerce and Administration) show significant increases in enrolments.

During the same period, the number of registrations in University College decreased in but five departments and increased in twenty-two, including Latin and Geology, not shown on Figure 9. The departments with the most pronounced decreases are Astronomy, Geography, and Botany. Of those departments that offered courses in 1919-20, seven show increases ranging from 448 per cent to 116 per cent: Home Economics, Sociology and Anthropology, Divinity, Mathematics, German, Physics, and Education.

There are a number of possible explanations for the variation in the number of registrations in the several departments and during the ten years within the same departments.

Figures 8a and 9a give, according to departments, the number of new courses and of all courses offered and the number of registrations in 1928-29 in Home-Study and University College respectively. These diagrams are arranged on semi-logarithmic scales to present the percentage relation of the number of courses offered to the number of registrations.

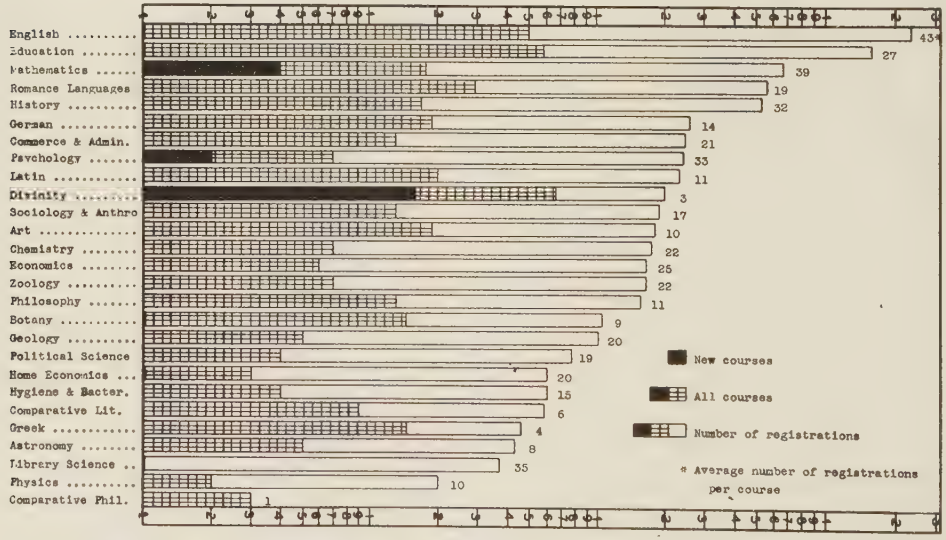

Fig. 8a.- Number of new courses, of all courses, and of registrations in each department in Home-Study in 1928-29.

As these Figures show, there is a slight tendency for the number of registrations in a department to increase somewhat as the number of courses is increased. Notable exceptions to this generalization are the departments of Divinity, Greek, and Library Science in Home-Study and of Divinity, Psychology, Comparative Literature, and Geology in University College.

There is no pronounced effect upon the number of registra-

tions because of offering new courses. The result of the new courses offered in University College, however, seems to have had a little more effect than new offerings in Home-Study. It is significant to note that in Home-Study the registrations in 1928-29 were less in Mathematics and Psychology than in 1919-20 and the increase in the number of registrations in Divinity during the period was only about 30 per cent, in spite of the new offerings in these three departments. In University College, the number of registrations was less in 1928-29 than in 1919-20 in three departments that offered new courses--Economics, Botany, and Geography. Evidently factors other than the number of new courses and the total number of courses operate to cause some of the variation in registrations.

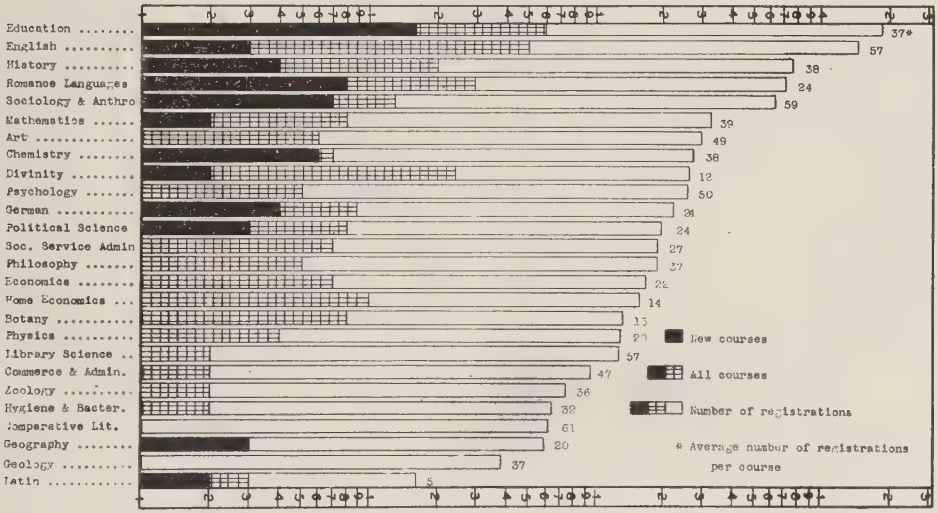

Fig. 9a.- Number of new courses, of all courses, and of registrations in each department in University College in 1928-29.

A third factor that may cause more registrations in some departments than in others is that teachers-in-service pursue courses by correspondence and/or in University College to meet promotional requirements. The large enrolments in Education may be accounted for, in part at least, by this factor.

Many registrations are made by students who are completing undergraduate sequences. The greater number of the registrations, it will be noted, are in the non-laboratory subjects, as laboratory facilities are not available to most correspondence-study students and not to class-study students unless the courses are offered on the Quadrangles. As only one-third, approximately, of the work required for a Master's degree may be taken in University

College, the demand for credit courses on the graduate level is lower than it would be otherwise.

A fifth factor that operates in Home-Study is that there are a number of enrolments for sub-college courses. Table XXII gives the number of registrations in sub-college courses in Home-Study for each of the ten years, 1919-20 to 1928-29.

TABLE XXII

NUMBER OF REGISTRATIONS IN HOME-STUDY IN SUB-COLLEGE COURSES DURING THE TEN YEARS, 1919-20 TO 1928-29, BY DEPARTMENTS

Department	Number of Registrations									
	1919-20	1920-21	1921-22	1922-23	1923-24	1924-25	1925-26	1926-27	1927-28	1928-29
Economics	73	48	33	18	21	27	[a] -	-	-	-
Commerce and Administration	-	-	-	-	-	-	18	14	8	12
History	85	93	70	109	117	116	123	92	67	53
Art	13	16	13	7	15	11	10	11	6	3
Latin	127	132	108	119	109	115	106	62	53	61
English	279	246	248	199	232	309	274	204	163	150
Mathematics	192	165	115	133	137	154	187	132	111	99
Geology	13	5	7	6	11	12	7	11	13	6
Hygiene and Bacteriology	0[b]	1	3	0	1	5	-	-	-	-
Total	782	706	597	591	643	749	725	526	421	384

[a] - indicates that no courses were offered.

[b] 0 indicates that courses were offered but there were no registrations. Data from Secretary of the Home-Study Department.

This table shows that the tendency is toward less work being done in sub-college courses, the number of registrations ranging from 782 in 1919-20 to 384 in 1928-29. Only nine departments offered such courses during the ten years and only seven during the four-year period ending with 1928-29. The smaller enrolments for sub-college courses in these departments accounts for some of the decreases in registrations indicated in Figure 8.

Another factor that might be suggested as operating to cause lower enrolments in Home-Study is that the lesson outlines may not have been kept up to date. The number of revisions in course outlines shows the efforts that have been made to eliminate this factor.

Of the 425 courses offered in 1929-30, the outlines of over one-half have been revised since 1926-27. Since 1919-20 or since the courses were first offered the outlines of 121 have been wholly or partly changed once, 75 have been altered twice, 65

three times, and one eleven times. This does not include the outlines of a few courses for which revision dates were not known, the number adapted to individual students, and the outlines in process of revision.

The preceding discussion has shown that the total number of registrations in Home-Study has decreased since 1925-26 although the number in a few departments has increased. This decrease has occurred in spite of the new courses that were made available from year to year and the many revisions in course outlines that have been made.

There are at least three possible causes for the decreasing enrolments. First, an increasing number of higher institutions are offering correspondence-study work. Because this service is offered in more centers, fewer students enrol with the University. Second, due to the accessibility of institutions of higher learning because of the automobile and the available amount of money before the depression, many persons no doubt carried on residence study who formerly would have studied by correspondence. Third, the proportion of persons graduating from high school is greater than ever before, the number desiring courses on this level being greatly reduced.

It seems that the Home-Study Department would be justified in discontinuing the courses of a sub-college grade and possibly some other courses that are offered rather generally by other institutions, and in centering its efforts on devising new types of work to be offered by extension. On the other hand, because of the economic depression the enrolments may increase, as many persons who cannot attend residence classes may desire to continue their education through correspondence. In any event, it does not appear that the Department is justified in providing secondary education--a function of the State.

The variation in the number of registrations in the several departments both in Home-Study and in University College presents a challenge to the administrative officers of these extension organizations to experiment with different types of courses and with different methods of presentation. The Dean of University College has already made a beginning in this direction.

Public lecture attendance.- The attendance at the public lectures is given in Table XXIII.

Although the public lecture program was not inaugurated until March, 1926, 413 lectures were given from that date until the close of the Spring Quarter of 1930. The total attendance for the period was 93,054, an average of 225 per lecture, as Table XXIII shows.

The types of subjects or themes that attracted the largest

TABLE XXIII

ATTENDANCE AT THE PUBLIC LECTURES*

Year	Themes or Subjects	No. of Lectures	Total Attendance	Average Attendance
March and April 1926	Some Problems in International Relations	3	288	96
	Home Training Problems	3	244	81
	Economic Factors in International Relations	3	193	64
	Approaches to Modern Literature	3	638	212
	Some Child Health Problems	3	87	29
	Total for the period	15	1450	96
1926-27	Creative Personalities	33	10,246	310
	Problems for the Average Investor	11	2443	222
	Nature of the World and Man	31	10,173	328
	International Relations	11	1267	115
	Democracy and Some of Its Competitors	10	2976	297
	Health and Medical Science	11	1221	111
	Total for the year	107	28,326	265
1927-28	Nature of the World and Man	31	4929	159
	Problems of the Individual Investor	20	2157	108
	Nineteenth Century Leaders in Literature	22	7980	363
	Health and the Community	10	578	57
	International Relations	9	1047	116
	Religions and Civilizations	15	2293	153
	Total for the year	107	18,984	177
1928-29	Contemporary Literary Leaders	30	10,574	352
	Medicine Through the Ages	20	1727	86
	Great Philosophers	9	3927	436
	Nineteenth-Century Poland	10	1280	128
	The Modern City	11	747	68
	Philosophy as a Way of Life in America	5	2364	473
	The Rise of American Democracy	8	934	117
	Life and Art in the Italian Renaissance	5	1392	278
	Total for the year	98	22,945	234
1929-30	Topics from the History of Chicago	10	1142	114
	The American Frontier in Literature	5	1375	275
	Contemporary Italy: From Cavour to Mussolini	5	2467	493
	Italian Literature	5	1374	275
	The American Indian	5	553	111
	Sites of Ancient Civilization	10	1745	175
	Security Speculation	6	1756	293
	Leading Types of Fiction	5	2429	486
	Some Spanish Types	5	692	138
	Everyday Problems in Law	5	518	104
	Business and Investment Forecasting	5	1277	255
	Five Old Poems	5	2284	457
	The English Novel Since the War	5	1744	349
	American Emotions	5	1558	312
	China in Revolution	5	435	87
	Total for the year	86	21,349	248
	Grand total	413	93,054	225

*Data from the Dean of University College.

audiences is an item of interest. The five themes with the largest average attendance are (1) Contemporary Italy: From Cavour to Mussolini, (2) Leading Types of Fiction, (3) Philosophy as a Way of Life in America, (4) Five Old Poems, and (5) Great Philosophers. The average attendance at the lectures of each of these series is over 400. Following these in popularity, the next five are (1) Nineteenth Century Leaders in Literature, (2) Contemporary Literary Leaders, (3) The English Novel Since the War, (4) The Nature of the World and Man, and (5) American Emotions. Each of these series had an attendance of over 300. When the series, Nature of the World and Man, containing thirty-one lectures, was offered the first year, the average attendance was 328, but when it was repeated the next year the average attendance was only 159. Lecture subjects on phases of business and finance were well attended but not to the extent that one might have expected. The attendance at the lectures on various aspects of health was comparatively small. Those who patronized the public lectures certainly could not be accused of being "dollar-minded," nor did they seem to be interested in learning about their physical welfare. They seemed, on the other hand, to be interested in the cultural and philosophical aspects of life.

The American Institute of Sacred Literature.- Between 9,000 and 10,000 persons used the services of The Institute in 1929-30 as reported by the Executive Secretary. A total of 8,736 courses were sent out. In many cases one set of the material is used by a number of students in study groups and some of the materials are handed from one student to another. Of those taking the work, approximately 62 per cent were persons who had used Institute materials before--25 per cent for four years or more, 12 per cent for three years, 25 per cent for two years. Only 38 per cent were new registrants.

Mortality

The foregoing registration figures do not give a complete picture of the situation, however. One measure often used to determine the success of an institution of higher learning is the extent to which the students complete the work for which they register. Due to the differences in the methods used by the two organizations in reporting statistics, a portion of the data on correspondence-study and class-study registrations are presented separately. No data are available to show to what extent the lecture patrons fail to attend all the lectures and to what extent those registering for the work offered by The Institute fail to read the materials sent out.

Completion of work by correspondence-study students.- The Home-Study Department uses the term completed to apply to a regis-

tration when all the lessons of a course have been sent in. By examination is meant the final examination which is required before a final grade is issued. Table XXIV presents the data on the number of registrations completed and the number of examinations taken during the ten years.

TABLE XXIV

NUMBER OF COURSE REGISTRATIONS IN HOME-STUDY, NUMBER AND PERCENTAGE COMPLETED, NUMBER OF EXAMINATIONS TAKEN, AND PERCENTAGE THE NUMBER OF EXAMINATIONS IS OF THE NUMBER OF COURSE REGISTRATIONS COMPLETED AND OF THE TOTAL NUMBER OF REGISTRATIONS

Year	Total Number of Registrations[a]	Number of Registrations in Which All the Lessons Were Completed[b]	Percentage of Registrations in Which All the Lessons Were Completed	Number of Registrations on Which Examinations Were Taken[c]	Percentage the Number of Registrations on Which the Examinations Were Taken Is of the Number Completed	Percentage the Number of Registrations on Which the Examinations Were Taken Is of the Total Number of Registrations
1919-20	8099[d]	1868	23	1603	86	20
1920-21	8988	2390	27	1945	81	22
1921-22	8945	2536	28	2329	92	26
1922-23	8978	2669	30	2366	89	26
1923-24	9429	2989	32	2487	83	26
1924-25	9766	3108	32	2882	93	30
1925-26	10,545	3210	30	2828	88	27
1926-27	9919	3341	34	2981	89	30
1927-28	8569	3020	35	2764	92	32
1928-29	8171	2777	34	2534	91	31
Total	91,409	27,908	31	24,719	89	27

[a]Registration--One person enrolled for one course.

[b]Registration completed--A registration is considered completed when all the lessons are sent to the instructor but before the final examination is taken.

[c]Examination--The final examination on the course.

[d]All data taken from the President's Reports.

Table XXIV shows that the percentage of registrations in which all the lessons were completed has increased during the nine years from 23 in 1919-20 to 34 in 1928-29, with 35 per cent in 1927-28. The average percentage completed upon which the final examinations were taken is a little higher during the last five

years than during the first five. The percentage of registrations on which the examinations were taken is also higher during the last five years. A little over one-third of the registrations in 1928-29 were completed, examinations being taken on approximately nine-tenths of these. For the ten years, an average of 30 per cent of the enrolments were completed and examinations were taken on 27 per cent.

A study of mortality in the various departments presents some marked contrasts. The average percentage of registrations completed during this period is less than 25 in eight departments, less than 33-1/3 in twenty-one, less than 40 in twenty-nine, and over 40 in but two departments. No data are available to show why there is this variation.

The number of registrations in sub-college courses and the number completed are given in Table XXV.

TABLE XXV

NUMBER OF REGISTRATIONS IN SUB-COLLEGE COURSES AND THE NUMBER AND PERCENTAGE COMPLETED EACH YEAR FROM 1919-20 TO 1928-29

Year	Number of Registrations*	Number of Registrations Completed*	Percentage Completed
1919-20	782	238	30
1920-21	706	312	44
1921-22	597	331	55
1922-23	591	304	51
1923-24	643	337	52
1924-25	749	324	43
1925-26	725	360	50
1926-27	526	314	60
1927-28	421	286	68
1928-29	384	209	54

*These figures are included in those given in Table XXIV.

A higher percentage of the enrolments in the sub-college courses is completed than of those in all the courses. As Table XXV shows, the range is from 30 to 68. The average for the ten years is 49 per cent. There are three possible explanations for the higher percentage completing the sub-college registrations: (1) many students enrol for courses on the sub-college level to enable them to complete college entrance requirements, a definite specific aim; (2) the goal, college graduation, is so remote for many who enrol for college courses that they give up before completing either a curriculum or a course. That the immediacy of the goal operates to cause at least a higher quality of work if not persistence in study has been shown to be true of students in

a teachers college.[1] A third factor that contributes to the small percentage who take the final examination in college work in Home-Study is that many students do the work not for credit but for the help given them in their current work. This fact is brought out in the letters that are received by the Secretary in answer to his notice that the time for the examination has arrived and as a result of his efforts to encourage students to complete their work.

Hall-Quest[2] gives the average mortality in twenty-five subjects at seven universities, including the University of Chicago, to be 36 per cent. It is not clear whether he includes extension class students in this figure or not. His term, mortality, refers to those students who do not complete all the lessons or take the final examination.

Another aspect of mortality is the number of course registrations that are dropped and the number of lessons completed before the courses are discontinued. Table XXVI shows the distribution, according to the number of lessons completed, of those students who dropped their work.

One thousand five hundred thirty-two correspondence-study students dropped their work during the year, March 20, 1929, to March 21, 1930. As Table XXVI shows, only about one-seventh of the students completed one-half or more of the lessons before discontinuing the work. The average number of lessons completed in these 1,532 registrations is 9.7. Because the largest registrations are in the Spring and Summer Quarters and the year, therefore, expires for these enrolments during the summer and autumn of the following year, the greatest number are dropped during the Summer and Autumn Quarters.

The number of resident students doing correspondence-study work was so small that no special study was made of the group.

The mortality of students who register for the completion of unfinished residence courses is not so great as for regular correspondence-study students. Table XXVII gives the number of registrations for the completion of unfinished residence courses, the number of examinations taken, and the percentage the number of examinations is of the number of registrations for each year during the ten-year period.

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[1] Clem O. Thompson and Dale Russell, Some Factors Affecting the Scholastic Success of Teachers College Freshmen, Bulletin, No. 4, Vol. II, Ball State Teachers College (Muncie, Indiana: Ball State Teachers College, July, 1927), pp. 18-19.

[2] Alfred Lawrence Hall-Quest, The University Afield (New York: The Macmillan Co., 1926), p. 154.

TABLE XXVI

DISTRIBUTION, ACCORDING TO THE NUMBER OF LESSONS COMPLETED, OF CORRESPONDENCE-STUDY STUDENTS WHO DROPPED THEIR WORK DURING EACH QUARTER IN THE YEAR, MARCH 20, 1929, TO MARCH 21, 1930*

Number of Lessons	Number Who Dropped Their Work During the				Total
	Spring Quarter	Summer Quarter	Autumn Quarter	Winter Quarter	
- 0	59	105	80	58	302
1 - 5	85	93	127	85	390
6 - 10	58	72	77	63	270
11 - 15	35	44	47	50	176
16 - 20	24	47	63	33	167
21 - 25	12	16	32	19	79
26 - 30	12	29	26	16	83
31 - 35	8	11	18	12	49
36 - 38	4	8	4	0	16
Total	297	425	474	336	1532

*Each major course contains forty lessons.
Data from instructors' reports.

TABLE XXVII

NUMBER OF REGISTRATIONS IN THE HOME-STUDY DEPARTMENT FOR THE COMPLETION OF UNFINISHED RESIDENCE COURSES, NUMBER OF EXAMINATIONS TAKEN, AND THE PERCENTAGE THE EXAMINATIONS ARE OF THE REGISTRATIONS FOR THE TEN YEARS, 1919-20 TO 1928-29

Year	Number of		Percentage
	Registrations	Examinations	
1919-20	209*	135*	65
1920-21	367	238	65
1921-22	317	145	46
1922-23	396	232	59
1923-24	324	254	78
1924-25	357	285	80
1925-26	530	444	84
1926-27	438	363	83
1927-28	403	359	89
1928-29	248	213	86
Total	3589	2668	74

*Data from the President's Reports.

The percentages taking the final examinations range from 46 in 1921-22 to 89 in 1927-28, the percentage for the ten years being 74. In other words, about one-fourth of the registrations for unfinished residence work were never completed, the tendency being, however, toward an increased percentage of students completing their registrations for residence courses. Here again

the factor of immediacy no doubt operates.

Completion of work by class-study students.- Approximately one-eighth of those who have registered for class-study work have failed to complete one or more courses. (Here completion means finishing all the required work including the final examination.) Table XXVIII gives the distribution of a sampling of class-study students according to the number of "incompletes recorded."

TABLE XXVIII

DISTRIBUTION OF CLASS-STUDY STUDENTS ACCORDING TO THE NUMBER OF "INCOMPLETES" RECORDED

Number of Majors Not Completed	Number and Percentage of Students with "Incompletes"	
	Number*	Percentage
0	1596	87.5
1	189	10.4
2	31	1.7
3	4	.2
4	2	.1
5	2	.1
Total	1824	100.0

*Data secured from a sampling of 7,340 permanent record cards that included 1,824 cards of students who had studied in University College.

As this table shows, seven-eights of the class-study students completed all the courses for which they registered and less than 1 per cent had as many as three or more courses not completed.

Another source of information on mortality in University College gives figures somewhat comparable to the percentages stated above. During the year, 1929-30, there were 6,829 registrations for class-study work, 85 per cent of which were passed, 8 per cent were not completed, 2 per cent were dropped, 1 per cent were failed, and 4 per cent were made by visitors, persons who did not desire credit but who did desire assistance in solving their particular, specific problems. In other words, 14 per cent of these registrations may be considered incomplete.

The records of resident students are not exactly comparable to those of the class-study students but a comparison may be made that will have some validity. According to figures compiled by the Recorder's Office for 1928-29, 93 per cent of the resident undergraduate registrations were passed, 2 per cent failed, 1 per cent received no grade, and 4 per cent received provisional grades. These percentages may be compared respectively with those of University College which were passed, failed, dropped, and not com-

pleted including visitors. The percentage passed is a little lower and the percentages dropped and not completed are a little higher in the College than for resident registrations.

Reeves[1] reports the percentage of registrations completed in the extension classes (class-study work) at the University of Kentucky to be 84.8, at Ohio State 20, at Oklahoma University 47.9, University of North Carolina 98, and the University of Texas 86.

When one compares the mortality figures of University College with those of the Home-Study Department the apparent success of the latter organization seems much less, but here success cannot be measured wholly by the percentage completing the courses. Factors appear that cause discontinuance of the work. These must be known before the real measure of success can be determined in both organizations.

Time elapsed before completing a course and before receiving a degree.- Another aspect of mortality to which attention should be called is the time taken by students to complete courses for which they have registered and the time from matriculation to the completion of a curriculum.

The time granted for the completion of a course in Home-Study is twelve months from the end of the quarter in which payment is made for the course. Using a sampling of the class rolls as a basis, data on 498 registrations are presented in Table XXIX.

The average number of months taken to complete a course in Home-Study, as computed from Table XXIX, is 9.7. The range is from one and one-half to over eighteen. One significant fact revealed here is that the greater the amount of time required for completing a course, the less is the probability that the final examination will be taken. The final examination was taken by 94 per cent of those who completed all the lessons within six months, by 87 per cent of those who used from six to twelve months, and by only 76 per cent of those who used over twelve months in which to complete all the lessons.

In University College the length of time granted for the completion of a course is either twelve or twenty-four weeks, depending upon whether the class meets two times each week or once, whether the class meetings are two hours or one hour in length, and the credit value of the course. The existing conditions limit the time to a definite number of weeks.

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[1]Floyd W. Reeves and Others, "Report of a Survey of the Department of the University Extension of the University of Kentucky" (Lexington: The University of Kentucky, 1929), pp. II-12, VI-14 (Unpublished).

TABLE XXIX

DISTRIBUTION OF 498 REGISTRATIONS IN HOME-STUDY ACCORDING TO THE NUMBER OF MONTHS FROM THE TIME OF ENROLLING IN A COURSE TO COMPLETING IT AND THE NUMBER AND PERCENTAGE TAKING THE FINAL EXAMINATION

Months Elapsed	Number of Major Registrations in Which All the Lessons Were Completed	Number of Major Registrations on Which Examinations Were Taken	Percentage the Number of Examinations Is of the Number of Registrations in Which All the Lessons Were Completed	Total Number of Registrations in Which All the Lessons Were Completed Within 6 Months, 12 Months, and over 12 Months	Total Number of Examinations on Major Courses in Which the Lessons Were All Completed within 6 Months, 12 Months, and over 12 Months	Percentage the Number of Examinations Taken within 6 Months, 12 Months, and over 12 Months Is of the Number of Courses Completed within These Periods
1½ - 2	33[a]	30[a]	91[a]			
2¼ - 3	32	29	91			
3¼ - 4	34	34	100			
4¼ - 5	41	38	93			
5¼ - 6	37	35	95	177	166	94
6¼ - 7	17	15	88			
7¼ - 8	27	24	89			
8¼ - 9	20	19	95			
9¼ - 10	15	13	87			
10¼ - 11	26	21	81			
11¼ - 12	35	30	86	140	122	87
12¼ - 14	102	76	75			
14¼ - 16	20	13	65			
16¼ - 18	12	11	92			
Over 18	47	37	79	181	137	76
Total	498	425	85	498	425	85

[a]Data from instructors' reports for the year, March 20, 1929, to March 21, 1930.

The time consumed in securing a degree is an item of importance. The permanent record cards of 334 correspondence-study students and of 111 class-study students were used to determine the time from matriculating to receiving a Bachelor's degree. The data are presented in Table XXX.

Table XXX shows that the number of quarters from matriculating to receiving a Bachelor's degree ranges from three, the minimum permitted by the University, to 115. The average for the correspondence-study students is 19 and for the class-study students 24.

TABLE XXX

PERCENTAGE DISTRIBUTION OF CORRESPONDENCE-STUDY AND CLASS-STUDY STUDENTS ON THE BASIS OF THE NUMBER OF QUARTERS FROM MATRICULATING TO SECURING A BACHELOR'S DEGREE

Number of Quarters	Percentage of*	
	334 Correspondence-Study Students	111 Class-Study Students
3	1	1
4 - 6	5	3
7 - 9	16	9
10 - 12	10	9
13 - 15	21	18
16 - 18	13	8
19 - 24	13	18
25 - 30	6	9
31 - 36	5	9
37 - 42	1	4
43 - 84	8	10
85 -115	1	2
Total	100	100

*Basic data from sampling of 7,340 permanent record cards.

A Master's degree was received by only thirteen of the 111 class-study students. The number of quarters between receiving a Bachelor's degree and receiving a Master's degree ranges from four to thirty-one with an average of fourteen quarters. Students may not earn credit by correspondence that will count toward a Master's degree, hence no comparable data are to be had for the correspondence-study students.

Concerning resident graduate students, Mr. Bixler[1] points out that of those who entered in the Summer and Autumn Quarters of 1920 and 1925, only 28.7 per cent had taken a higher degree within twenty quarters after entering.

Radio Audience

There is no available method of determining the number of persons who listen to the radio programs. A few facts are known, however, that indicate to some extent the size of the audiences that are actively interested in the broadcasts.

In the Spring Quarter of 1930 the announcement was made that all listeners who desired a copy of an outline of Professor Boynton's lectures could secure the same upon application. In response to the requests, 1,500 copies were sent out. In the Spring Quarter of 1931, when the Department charged thirty-five cents for

[1] Op. cit.

a copy of the outline of Professor Haydon's lectures, between eight and nine hundred requests were made. At present, comparatively few requests have been made for outlines because no announcement of the cost of the outline may be made over the radio.[1]

The response to Professor Castillo's course in Spanish shows an active interest in this work. Two hundred fifty persons have purchased the Spanish text- and work-books and fifteen have paid the fee which entitles the students to submit all papers to be corrected. Hundreds sent in papers on the tests that were given.

Occasional comments that are received show that the other features are presented to large audiences.

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[1]This rule is no longer in force.

CHAPTER V

USES MADE OF EXTENSION SERVICES

The uses made of the services offered by the various extension organizations may be classed under four types: for credit, for vocational purposes, for cultural values, and for the solution of religious difficulties.

No information could be secured concerning the use made of extension services by the lecture patrons or members of the radio audience, and little information, except by implication, could be found that would show the use made of the services of The American Institute of Sacred Literature. Some data were available, however, that indicate the use made of the services by the correspondence-study and class-study students.

Extension Services Used for Credit

Students seek credit by studying in Home-Study and/or University College for at least four purposes: as partial fulfillment of the requirements for a degree, for completing residence work in absentia, for removing entrance requirements, and for advanced standing in other institutions of learning.

Toward degrees.- Three measures were used to determine the extent to which students work in extension for the purpose of partially fulfilling the requirements for a degree: the students' desires for credit and for degrees, the number of majors earned, and the number who have received degrees.

Table XXXI gives the distribution of the students registered in University College based on their desire for credit.

Data are available for only 2,282 students. As is shown in Table XXXI, 86 per cent of these stated that they desired credit. Ninety-three per cent of the junior-college and 97 per cent of the senior-college students wished credit for their work while only 73 per cent of the unclassified and 78 per cent of the graduate students signified this desire. Here the immediacy of the goal seems to have operated.

Fewer men than women students expressed their desire for credit, 80 per cent of the former and 88 per cent of the latter. The difference is greatest among the unclassified students, only 57 per cent of the men but 80 per cent of the women in this group having registered for credit. This difference is explained par-

tially by the fact that proportionately more of the men than of the women register for work that will help them in their business pursuits.

TABLE XXXI

DISTRIBUTION OF CLASS-STUDY STUDENTS ON THE BASIS OF WHETHER OR NOT CREDIT IS DESIRED

Desire of Students	Number* and Percentage of Students									
	Unclassified		Junior-College		Senior-College		Graduate		Total	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
Desire credit	354	73	289	93	827	97	494	78	1964	86
Desire no credit	122	25	17	6	17	2	131	20	287	13
Desire not given	8	2	5	1	6	1	12	2	31	1
Total	484	100	311	100	850	100	637	100	2282	100

*Data from the 2,315 questionnaires. See Appendix, Section D.

The percentage of students registered in Home-Study who did not wish credit could not be determined because of the absence of such data. But as was pointed out in the preceding chapter, approximately 10 per cent of the students who completed all the lessons did not take the final examination, a requirement if credit is to be granted. It may be assumed, perhaps, that many of these 10 per cent as well as many of those who completed fewer than forty lessons did not wish credit.

The desire of the students for a degree is equally as important. No data were available for correspondence-study students, but 1,777 class-study students expressed a desire for some degree. The number and percentage of these students who expressed a desire for each degree are given in Table XXXII.

Of the 1,777 who expressed a desire for some degree, as is shown in Table XXXII, 74 per cent wished a Bachelor's degree and 26 per cent a higher degree. The degree of Ph.B. led the list of undergraduate degrees desired with 38 per cent and the M.A. degree led the list of graduate degrees with 15 per cent. Only five per cent expressed a desire for a Ph.D. degree as compared with 19 per cent who desired a Master's degree.

The number of students on each level desiring a degree is of interest. The distribution, on the basis of degree desired, of the class-study students registered on each level is given in Table XXXIII.

TABLE XXXII

NUMBER AND PERCENTAGE OF CLASS-STUDY STUDENTS WHO EXPRESSED A DESIRE FOR EACH DEGREE

Degree Desired	Number*	Percentage
A.B.	310	17
B.S.	308	17
Ph.B.	669	38
Other baccalaureate degree	37	2
M.A.	260	15
M.S.	67	4
Ph.D.	92	5
M.D.	11	1-
Other higher degree	23	1+
Total	1777	100

*Data from questionnaire--77 per cent of those who returned it. See Appendix, Section D.

TABLE XXXIII

DISTRIBUTION, ON THE BASIS OF DEGREE DESIRED, OF THE CLASS-STUDY STUDENTS REGISTERED ON EACH LEVEL

Degree Desired	Number[a] and Percentage of Students									
	Unclassified		Junior-College		Senior-College		Graduate		Total	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
Baccalaureate degree	237	49	267	86	811	95	10	2	1325	57
Higher degree	20	4	22	7	13	2	397	62	452	20
Desire not given	227	47	22	7	26	3	230	36	538*	23*
Total	484	100	311	100	850	100	637	100	2315	100

[a]Data from questionnaires. See Appendix, Section D.

*Includes 33 students who did not indicate the level on which they were registered.

As Table XXXIII shows, less than one-half of the unclassified students wished a Bachelor's degree while 95 per cent of the senior-college students expressed themselves as looking forward to receiving such a degree. As would be expected, proportionately more of the graduate students than of the members of the other groups expressed a desire for higher degrees. Another point revealed here is that, proportionately, almost four times as many junior-college students as senior-college students expressed a desire for a higher degree. This difference might be explained on

the basis of the relative abilities of the students and/or on the basis of a hope later abandoned. No data are available to support either point, however. The high percentages of junior- and senior-college students desiring a Bachelor's degree may be explained in part by their nearness to the goal, graduation, and in part by their need for the degree to meet teaching requirements. The comparatively low percentage of unclassified students desiring a degree may be because many of them are studying merely to meet promotional requirements and to assist them in their daily tasks.

Other measures used were the number of majors of credit earned in extension work and the number of extension students that received a degree. The distribution of these students according to the number of majors earned and the number who received degrees is given in Table XXXIV. The data presented here are for the degrees received from the University of Chicago. There was no information to show how many of the students received degrees from other institutions.

TABLE XXXIV

DISTRIBUTION OF EXTENSION STUDENTS ACCORDING TO THE NUMBER OF MAJORS OF UNDERGRADUATE CREDIT EARNED IN EXTENSION AND THE NUMBER OF STUDENTS WHO RECEIVED BACHELOR'S DEGREES* FROM THE UNIVERSITY OF CHICAGO

Number of Majors of Credit	Students Registered in Home-Study			Students Registered in University College		
	Number	Percentage	Number Who Later Received a Bachelor's Degree	Number	Percentage	Number Who Later Received a Bachelor's Degree
.5 - 1	379	56.6	188	351	45.7	30
1.5 - 2	135	20.1	63	140	18.2	10
2.5 - 3	68	10.1	28	78	10.2	2
3.5 - 4	38	5.7	24	39	5.1	4
4.5 - 5	12	1.8	7	32	4.2	3
5.5 - 6	13	1.9	8	25	3.3	6
6.5 - 7	5	.8	2	11	1.4	2
7.5 - 8	5	.8	3	11	1.4	1
8.5 - 9	2	.3	1	4	.5	1
9.5 - 10	4	.6	3	16	2.1	7
Over 10	9	1.3	7	61	7.9	45
Total	670	100.0	334	768	100.0	111

*Data secured in a sampling of 7,340 permanent record cards.

The sampling produced 670 students who had earned undergraduate credit by correspondence and 768 students who had earned undergraduate credit in University College. The average number of majors earned by the 670 correspondence-study students is 1.9,

the number ranging from one-half to thirty-seven. The average number of majors earned by the 768 class-study students is 3.2, the number ranging from one-half to thirty-eight and one-half. Of the 670 students, 65 had received credit by correspondence after having received a Bachelor's degree, and of the 768, 35 had done work in University College after having received a Bachelor's degree.

Three hundred thirty-four of the 670 correspondence-study students and 111 of the 768 class-study students received a Bachelor's degree. Of the sixty-five students who earned credit by correspondence after having received a Bachelor's degree, 47 were granted a Master's degree, one the B.D. degree, one the J.D., two the M.D., and six the Ph.D. degree. Of the thirty-five students who had studied in University College after having received the Bachelor's degree, fifteen were later granted the Master's degree.

Other available data permit a further analysis of the proportion of recent class-study students who earned various numbers of majors of credit in extension. The distribution, according to the number of majors of credit received, of these students who had earned credit toward baccalaureate and higher degrees is given in Table XXXV.

TABLE XXXV

DISTRIBUTION OF CLASS-STUDY STUDENTS ACCORDING TO THE NUMBER OF MAJORS OF CREDIT RECEIVED IN UNIVERSITY COLLEGE

Number of Majors	Number* and Percentage of Students Who Had Earned Credit			
	Toward a Baccalaureate Degree		Toward a Higher Degree	
	Number	Percentage	Number	Percentage
.5 - 1	171	14.5	110	31.9
1.5 - 2	136	11.5	57	16.5
2.5 - 3	113	9.6	43	12.5
3.5 - 4	98	8.3	29	8.4
4.5 - 5	74	6.3	19	5.5
5.5 - 6	66	5.6	20	5.8
6.5 - 7	49	4.1	11	3.2
7.5 - 8	30	2.6	11	3.2
8.5 - 9	43	3.6	8	2.3
9.5 - 10	50	4.2	5	1.4
Over 10	351	29.7	32	9.3
Total	1181	100.0(51)	345	100.0(15)
Number of majors not given	1134	49	1970	85
Total	2315	100	2315	100

*Data secured from questionnaires. See Appendix, Section D.

The percentages in column two in this table differ some from those in column five of Table XXXIV. The data in Table XXXV show that proportionately more of the students who were registered in University College in the Autumn and Winter Quarters of 1929-30 than of the sampling taken from the permanent records, Table XXXIV, have earned a number of majors of credit in the College. Forty-nine and eight-tenths per cent of the Autumn and Winter group and 16.6 per cent of the sampling earned over five majors. This may indicate a tendency of students in the metropolitan area to make proportionately greater use of the opportunities offered by University College and less use of the offerings on the Quadrangles.

In addition to the foregoing non-resident students, there were a few resident students who studied in Home-Study or University College or in both. These persons studied in extension in order to secure certain courses, required as prerequisites or on sequences, that were not available on the Quadrangles. Comparatively few students make use of the extension service for this purpose, however.

Completing resident work "in absentia."- Quadrangle students who are forced to withdraw from classes before the close of a quarter may complete their work in absentia through the Home-Study Department. During the ten years, 1919-20 to 1928-29, an average of 359 registrations were made yearly in the Department by resident students for the purpose of completing residence work that had been dropped.

Removing entrance requirements.- An attempt was made to determine to what extent students use credit earned in Home-Study and/or University College for the purpose of removing the entrance requirements of the Junior College and of the Graduate Schools. The records throw no light on this question, but the Secretary of the Home-Study Department and the Dean of University College said that many students enrolled for courses for the purpose of equalizing their Bachelor's degrees with the similar degree granted in the University, a requirement for entering graduate work.

Advanced standing in other institutions.- The permanent record cards of the correspondence-study and class-study students and the questionnaires[1] filled out by the latter furnished two sources of information for determining the extent to which credit earned in Home-Study and/or University College was used for advanced standing in other institutions. In determining the number who received statements of their work, only those were counted who had received transcripts since they had done their last work in the University of Chicago. Only these students were counted

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[1] Appendix, Section D.

as it was assumed that they were planning to use their credentials in other institutions, although there is a possibility that some of them might return later to the University as many have done in the past after having received transcripts. Sending a transcript to a student does not indicate that he will not return to the University.

A greater percentage of the correspondence-study than of class-study students had been sent transcripts of their work. Of the 670[1] correspondence-study students, 237 had been given statements of their work; of the 768[1] class-study students, 122 had been issued transcripts. The higher percentage of correspondence-study students is what would be expected because of the geographical distribution of this group.

The class-study students were also asked where they expected to receive a degree. Only 73 per cent of the 2,315 students answered the question. Of these, 89 per cent stated that they desired to receive a degree from the University of Chicago and 11 per cent stated they expected to receive a degree from some other institution.

Approximately one-third of the correspondence-study students and one-seventh of the class-study students expect to use their credits for advanced standing in other institutions.

Vocational Uses

It is difficult, if not impossible, to determine objectively the extent to which the services of the extension program are used for vocational purposes. Some information, however, is secured from a study of the occupations in which the students were engaged.

The occupational status of the students was pointed out in the preceding chapter. It can be assumed that in the majority of cases "students," "teachers," and others engaged in school work are studying to receive a degree, for professional advancement, or for promotional credit.[2] Many others, such as "clerks," who register for Commerce and Administration, Mathematics, and English composition courses, and "Business men," who register for English composition, Commerce and Administration, and Mathematics courses, doubtless do so for vocational reasons.

It has already been shown that 287, or 12 per cent, of the 2,315 class-study students stated that they did not desire credit. This group represented twenty-two occupations, 68 per

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[1] See Table XXXIV.

[2] By "promotional credit" is meant credit that will entitle the person to a promotion in the City School System because of additional university work.

cent being in the professions. Of the 68 per cent, over one-half were in some type of educational work. All but 17 of the 287 stated why they were studying. One hundred fourteen gave "help in their work," four gave "promotional credit," and eight gave "as delegates"[1] as the reasons for studying in University College. Various reasons were given by the remainder.

As was also pointed out in an earlier section of this chapter, many of the class-study students were not working toward a degree. The evidence indicates that these students, who desired neither credit nor degrees, were pursuing courses that would help them in their daily tasks or were studying for promotional credit.

Many of the persons who attended the lecture on "Business Forecasting" took notes. This may have indicated that a vocational use was to be made of the contributions of the lecturer.

No doubt many use the services of The American Institute of Sacred Literature in their routine work. This is probably true especially of the ministers who enrol for the "Reading Courses for Ministers."

Cultural Uses of Extension Services

According to Webster's New International Dictionary, culture is the "act of improving or developing by education, discipline, etc.; the training, disciplining, or refining of the moral and intellectual nature." According to this definition, the conclusion might be made that many cultural values result from the services offered in the extension program. No definite data are available concerning the Home-Study, The Institute, and Radio groups. Of the 270 class-study students who were not working for credit but who stated why they were studying, 84 gave "knowledge, information," 31 "interest in the subject," 18 "travel, pleasure," and 11 "culture" as reasons for having registered for extension courses.

Solution of Religious Difficulties

Many of the men and women using the services of The American Institute of Sacred Literature are seeking enlightenment on religious problems. A cross section of the correspondence addressed to the Executive Secretary over a period of ten days revealed inquiries from many young persons and many adults as well. In this sampling of the correspondence, representatives of seven different religious denominations, of the Young Men's and Young Women's Christian Associations, and of many business and professional fields requested information that would help them to solve religious difficulties.

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[1] A "delegate" is one who attended a class as a representative of a number of Chicago Public School teachers.

During the recent war, The Institute carried on a campaign through its pamphlet literature calculated to offset the rampant pre-millennialism that went so far as to affect people's interest in the war. During this period The Institute circulated many thousands of pamphlets under the titles "Will Christ Come Again?", "The Pre-Millennial Menace," "Does the Bible Predict the Present War?", and "Is the Golden Rule workable between Nations?".

After the war the controversy over evolution arose. It still continues in mild form with anti-evolution laws being proposed in the legislatures of a dozen or more states. The Institute kept in touch with such proposed legislation and sent out a series of pamphlets on science and religion. Each member of a legislature in which such anti-evolution bills were introduced was sent a copy of this literature. The Executive Secretary always received statements of appreciation from responsible state officers of the help derived from such literature.

A cursory examination of the daily mail of the Secretary reveals expressions of appreciation of the value of the materials from persons in all walks of life and from all parts of the world.

CHAPTER VI

EXTENSION STAFF

The value of any educational program is determined to a considerable extent by the members of the staff who carry it on, while their ability to perform the activities assigned to them is indicated in part by the sources from which they are secured and further by their qualifications. The purpose of this chapter is to present a discussion of the extension staff members with reference to the following points: (1) the sources from which they are secured; (2) their qualifications; and (3) the proportionate amount of the teaching that is done by the teachers secured from each source and possessing certain qualifications.

Sources from Which Staff Members Are Secured

The staff members are secured from three sources: (1) the Faculties of the University of Chicago; (2) the faculties of other institutions; and (3) business and professional fields. Those secured from the Faculties of the University who teach both on the Quadrangles and in extension are hereafter referred to as Group 1; those from the Faculties of the University who teach only in extension are called Group 2; and those secured from other faculties and business and professional fields are designated as Group 3. The members of the staff are further divided into three classes according to the kind of work performed: teachers, lecturers, and writers.

Teachers.- The percentage of the teachers from each source is given in Table XXXVI and in Figure 10.

The number of teachers on the Home-Study staff during the ten years, 1919-20 to 1928-29, ranges from 111 in 1921-22 to 133 in 1926-27; the number on the staff of University College during the same period ranges from 71 in 1919-20 to 165 in 1928-29. As is shown in Table XXXVI, approximately two-thirds of the Home-Study staff belong to Group 1, with the remainder divided almost equally between Groups 2 and 3, while over 80 per cent of the University College staff are in Group 1, and none are in Group 2. As Figure 10 shows, during the ten years there has been a slight tendency for the Home-Study Department to use comparatively more instructors of the Group 3 type and less of Group 2, and for University College also to use more of Group 3.

TABLE XXXVI

PERCENTAGE OF HOME-STUDY AND UNIVERSITY COLLEGE TEACHERS SECURED FROM EACH SOURCE EACH YEAR DURING THE YEARS, 1919-20 TO 1928-29

Year	Percentage of Teachers from						Total Number	
	Faculties of University of Chicago Who Taught				Other Faculties and Business and Professional Fields			
	On the Quadrangles and in Extension		In Extension Only					
	Group 1*		Group 2		Group 3			
	H-S.[a]	U.C.	H-S.	U.C.	H-S.	U.C.	H-S.	U.C.
1919-20	71	89	17	-	12	11	115	71
1920-21	72	92	17	-	11	8	114	78
1921-22	69	90	19	-	12	10	111	79
1922-23	68	86	19	-	13	14	114	77
1923-24	70	91	17	-	13	9	116	98
1924-25	68	86	16	-	16	14	125	139
1925-26	66	85	14	-	20	15	125	130
1926-27	65	80	16	-	19	20	133	146
1927-28	67	85	15	-	18	15	131	152
1928-29	66	84	14	-	20	16	130	165

*Group 1--University of Chicago teachers who teach both on the Quadrangles and in extension.
Group 2--University of Chicago teachers who teach only in extension.
Group 3--Teachers secured from other faculties and from business and professional fields.

[a]H-S. = Home-Study; U.C. = University College.

In the Home-Study Announcements for 1930-31 the percentage of teachers in Group 1 is 70, in Group 2 it is 16, and in Group 3 it is 14, showing a decided increase in Group 1 and a decrease in Group 3 since 1928-29.

Lecturers.- The members of the lecture staff are drawn for the most part from the Faculties of the University. These are classed as Group 1, 88 per cent being in this group. The remainder, Group 3, are drawn from the business and financial world, hospital staffs, health departments, and social organizations. All the radio talent is secured from the University Faculties except an occasional visiting preacher.

Writers.- The persons who have contributed the materials used by The American Institute of Sacred Literature have been secured principally from the University Faculties, the staffs of theological schools, and the ministerial profession. Of the seventy-one contributors of articles and courses used by The Institute, thirty-six were members of the University Faculties, twelve were from theological schools, eight were pastors of prominent

churches. The remainder, except one, a lawyer, were members of the staffs of other institutions of learning.

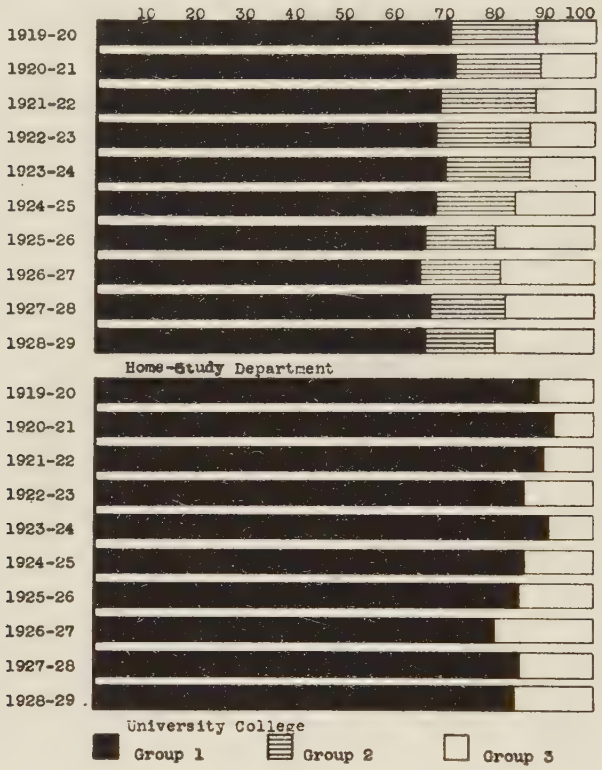

Fig. 10.- Percentage of Home-Study and of University College teachers secured from each source. (Group 1, teachers from the Faculties of the University of Chicago who taught both on the Quadrangles and in extension; Group 2, those from the Faculties of the University of Chicago who taught only in extension; Group 3, those from other faculties and from business and professional fields.)

Qualifications of Staff Members

Four criteria are considered in the analysis of the qualifications of the staff members: (1) method of selection; (2) degrees held; (3) academic ranks; and (4) occupations.

Method of selection.- The method of selecting staff members insures only those being chosen who are reasonably well qualified to do that which is expected of them. In an earlier chapter the method of obtaining extension staff members was pointed out. No one is selected to teach in Home-Study and/or University College who does not receive the approval both of the respective

administrative officer and also of the head or chairman of the department concerned, and no one is selected to prepare any of The Institute materials who is not approved by both the Executive Committee and the Secretary. Although some are chosen to work in extension who do not possess qualifications equal to staff members doing comparable work on the Quadrangles, the proportion of such members is small.

Degrees held.- It is realized that the holding of a degree does not guarantee good teaching, lecturing, or writing, but the possession of a degree, especially a higher degree, usually insures that a broader background and a more scholarly attitude are brought to one's work than is true when one is not so trained. Table XXXVII gives the distribution, by degrees held, of resident teachers and of teachers in each group on the Home-Study and University College staffs.

TABLE XXXVII

DISTRIBUTION, BY DEGREES HELD, OF THE RESIDENT STAFF AND OF TEACHERS IN EACH GROUP ON THE HOME-STUDY AND UNIVERSITY COLLEGE STAFFS IN 1928-29

Degree	Number of Teachers in							
	Residence	Home-Study Groups*				University College Groups*		
		1	2	3	Total	1	3	Total
Ph.D.	338	55	7	16	78	67	8	75
Master's	99	18	3	6	27	41	9	50
Other higher degree	78	3	1	2	6	4	0	4
Bachelor's	93	9	5	0	14	24	5	29
None	12	1	2	2	5	3	4	7
Total	620	86	18	26	130	139	26	165

*Group 1--teachers from the Faculties of the University of Chicago who taught both on the Quadrangles and in extension; Group 2--teachers from the Faculties of the University who taught only in extension; Group 3--teachers from other faculties and from business and professional fields.

As Table XXXVII shows, over one-half of the Home-Study and a little less than one-half of the University College teachers held Ph.D. degrees in 1928-29. It is significant that over one-half of the Home-Study teachers in Group 2 and over four-fifths in Group 3 held Master's or Ph.D. degrees, and almost two-thirds of the Group 3 University College teachers held similar degrees. The proportion of Home-Study teachers with Ph.D. degrees is considerably higher than the proportion of University College teachers; the relative number with other higher degrees, J.D., M.D., B.D., LL.B., and D.D., is also some higher in Home-Study than in University College while the proportion with Master's degrees is a little

lower. (The degree accredited to each person is the highest degree held by him.)

Table XXXVIII gives the percentage of Home-Study, University College, and resident teachers and of extension teachers in other institutions holding each degree.

TABLE XXXVIII

PERCENTAGE OF HOME-STUDY, UNIVERSITY COLLEGE, AND RESIDENT TEACHERS AND OF EXTENSION TEACHERS IN OTHER INSTITUTIONS HOLDING EACH DEGREE

Degree	Percentage of Teachers Holding Each Degree				
				In Other Institutions[1]	
	Home-Study[a]	University College[a]	Resident[a]	Correspondence-Study Teachers	Class-Study Teachers
Ph.D.	60	46	54	36	30
Master's	21	30	16	28	23
Other higher	4	2	13	8	13
Bachelor's	11	18	15	19	18
None	4	4	2	9[b]	17[b]
Total	100	100	100	100	101

[1] Hall-Quest, op. cit., p. 169.

[a] Data for Home-Study, University College, and resident teachers are for 1928-29.

[b] Hall-Quest uses the expression, no degrees stated, where none is used here, and scattering where other higher is used here.

Figure 11 shows graphically the percentage distribution, according to degrees held, of teachers, lecturers, and writers on the extension staff, resident teachers, and members of extension staffs in other institutions.

On the whole, the Home-Study teachers are fully as well trained, on the basis of degrees held, as are the resident teachers. The Group 2 teachers, however, do not possess training equal to those in either Group 1 or Group 3.

The training of the University College teachers, on the basis of degrees held, is considerably below that of the resident teachers, only 45 per cent of the former in contrast with 55 per cent of the latter holding the Ph.D. degree. Only 31 per cent of the Group 3 teachers held the Ph.D. degree and only 66 per cent held either the Ph.D. degree or a Master's degree. This is not so serious, however, as many of the University College teachers in Group 3 are selected because of their particular training and experience in their respective fields of work.

The qualifications of the lecturers as revealed by degrees held are almost equal to those of the teachers, as Figure 11 shows.

Over one-half held the Ph.D. degree, and over four-fifths held either the Ph.D. degree, a Master's degree, or some other higher degree. A Bachelor's degree is the highest held by 8 per cent, and no degrees have been received by 8 per cent.

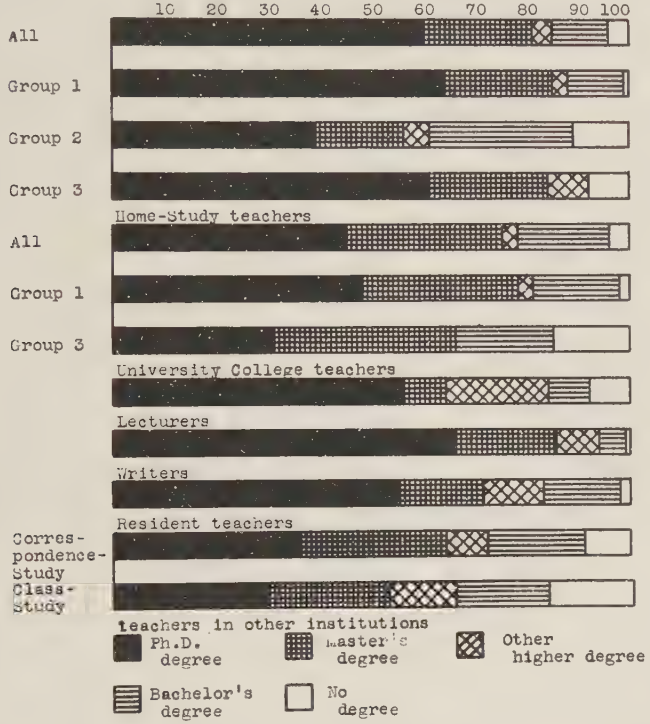

Fig. 11.- Percentage of Home-Study, University College, and resident teachers, lecturers on the University College Public Lecture Program, and writers for The American Institute of Sacred Literature with each degree in 1928-29 and of teachers in other institutions. (Ph.D. includes Sc.D.; Other higher degrees include B.D., J.D., M.D., LL.D., and D.D. Group 1, teachers from the Faculties of the University of Chicago who teach both on the Quadrangles and in extension; Group 2, those from the Faculties of the University who teach only in extension; Group 3, those from other faculties and from business and professional fields.)

On the basis of degrees, those who contributed to The Institute are as well trained as the above groups. Over 66 per cent held the Ph.D. degree and all but 7 per cent held the Ph.D., a Master's, or some other higher degree. Practically all of those who have Master's degrees held the B.D. degree also and many have received the D.D. degree.

The extension staffs of the University compare very favorably with the staffs of other institutions on the basis of degrees held.

Academic ranks.- Another measure of the qualifications of the staff members is their academic ranks. Table XXXIX gives the distribution of resident teachers and teachers in each group on the Home-Study and University College staffs according to the ranks held in 1928-29.

It should be noted here that the members of the staffs in Group 3 did not have ranks exactly comparable to the ranks in the University of Chicago and those secured from the business and professional fields, other than teaching, hold no academic ranks. The ranks of those secured from other faculties may or may not have been equal to the same ranks in the University. The rank of professor in some of these other institutions may compare only to the rank of instructor or assistant professor here. Persons leaving other institutions with upper ranks to become members of the Faculties of the University of Chicago with lower ranks furnishes evidence for this assertion.

TABLE XXXIX

NUMBER OF RESIDENT TEACHERS AND OF TEACHERS IN EACH GROUP ON THE HOME-STUDY AND UNIVERSITY COLLEGE STAFFS HOLDING EACH RANK IN 1928-29

Rank	Number of Teachers in							
		Home-Study Department				University College		
	Resi-dence	Groups*			Total	Groups*		Total
		1	2	3		1	3	
Professor	195	30	4	9	43	33	1	34
Associate Professor	68	17	0	4	21	22	0	22
Assistant Professor	106	23	1	3	27	38	1	39
Instructor	109	12	7	6	25	30	2	32
Other	139	4	6	4	14	15	0	15
None	3	0	0	0	0	1	22	23
Total	620	86	18	26	130	139	26	165

*Group 1--Teachers from the Faculties of the University of Chicago who taught both on the Quadrangles and in extension; Group 2--Teachers from the Faculties of the University who taught only in extension; Group 3--Teachers from other faculties and from business and professional fields.

Table XL gives the percentage of Home-Study, University College, and resident teachers and of extension teachers in other institutions holding each rank.

Figure 12 gives the percentage distribution, according to ranks held, of teachers, lecturers, and writers.

Table XL and Figure 12 show that a majority of the teachers possessed the rank of assistant professor or higher in 1928-29.

Proportionately more Home-Study than resident teachers and relatively more of the University College teachers in Group 1 than resident teachers held the higher ranks, but only 24 per cent of the former as compared with 31 per cent of the latter held the rank of professor. The conclusion cannot be made, however, that the University College teachers were more poorly trained than those of the two other groups. Practically all of the twenty-three University College teachers with no academic ranks were persons holding responsible positions in their respective vocations and professions and if they were employed on the regular University staff would, no doubt, be assigned academic ranks of assistant professor or higher.

TABLE XL

PERCENTAGE OF HOME-STUDY, UNIVERSITY COLLEGE, AND RESIDENT TEACHERS AND OF EXTENSION TEACHERS IN OTHER INSTITUTIONS HOLDING EACH RANK

Rank	Percentage of Teachers Holding Each Rank				
				In Other Institutions[1]	
	Home-Study[ab]	University College[ab]	Resident[a]	Correspondence-Study Teachers	Class-Study Teachers
Professor	33	24	31	37	21
Associate Professor	16	16	11	13	9
Assistant Professor	23	27	17	16	16
Instructor	18	21	18	16	21
Other	10	11	22	9	4
None	0	1	1	11[c]	29[c]
Total	100	100	100	102	100

[1] Hall-Quest, op. cit., p. 167.

[a] Data for Home-Study, University College, and resident teachers are for 1928-29.

[b] Group 3 teachers are not included.

[c] Hall-Quest uses the term, undesignated, where none is used here.

Proportionately more of the lecturers than of teachers held higher ranks, showing that the tendency is to select the more mature and better qualified members of the University Faculties to appear on the lecture program.

Over two-thirds of the writers on The Institute staff held the rank of professor, while about one-seventh held no academic rank.

When the staffs of Home-Study Department and University College are compared with the extension staffs of other institutions on the basis of ranks held, it is seen that the University

extension staffs compare favorably with those in other universities and colleges.

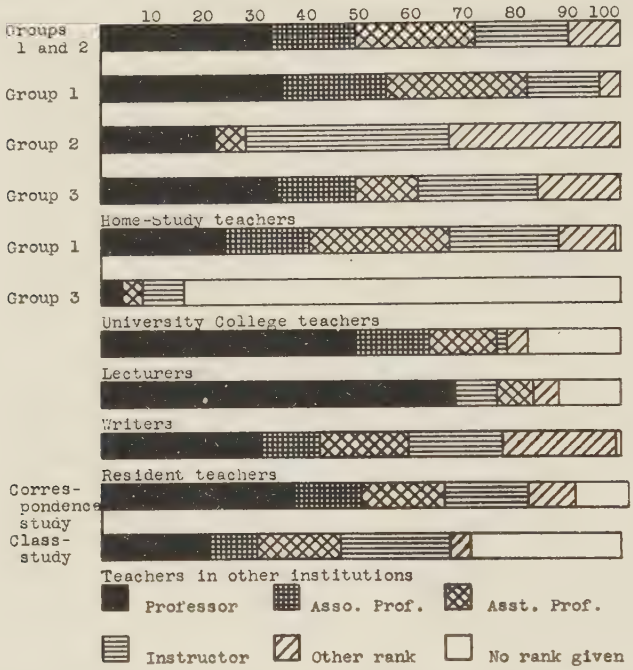

Fig. 12.- Percentage distribution by academic rank of the Home-Study, University College, and resident teachers, lecturers on the University College Public Lecture Program, and writers for The American Institute of Sacred Literature in 1928-29, and of teachers in other institutions. (Group 1, teachers secured from the Faculties of the University of Chicago who taught both on the Quadrangles and in extension; Group 2, teachers from the Faculties of the University who taught only in extension; Group 3, those secured from other faculties and from business and professional fields.)

Occupations.- The regular occupations of the extension staff members constitute another measure of their fitness for the work they do in extension.

It has been pointed out that all the members of Groups 1 and 2 are members of the Faculties of the University, and it may be assumed that the work these persons have done and are doing on the Quadrangles is evidence of their qualifications to carry on activities of a similar nature in the extension program.

The occupations of the members of Group 3 are more varied. Of the fifty-two teachers in this group, a majority are affiliated with other institutions of higher learning where they are teaching in the same fields of thought in which they are working in extension. The remainder are engaged in high-school teaching, in busi-

ness, or in other professional fields. Only twenty-eight, or 18 per cent, of the lecturers are in Group 3. Of these twenty-eight, four are members of other faculties, two are on hospital staffs, eleven are employees of banks and trust companies, three are from the Chicago Health Department, three are professional employees of the Chicago School Board, and five are affiliated with social service and medical associations. All hold responsible positions with their respective organizations according to the statements given in the announcements of the lectures.

Of those members of Group 3 who have contributed material for The Institute, eight are pastors of large churches, three are presidents of Theological seminaries, and twenty-three are members of the staffs of other institutions, all institutions of a high level. One is a lawyer of standing in his community and in The American Bar Association.

Other factors.- Another fact concerning the qualifications of these staff members is pertinent. Practically all of the teachers and many of the lecturers in Group 3 have been either members of the University Faculties or students in the University. The contacts which the University officers of instruction have had with these persons furnish some basis for their selection.

One other factor that contributes to the ability of the teachers in Home-Study is their own experience in doing work by correspondence. Sixteen per cent of the teachers in Group 1, 5 per cent of Group 2, and 30 per cent of Group 3 in 1929-30 had studied in the Home-Study Department at some time in the past.

Proportion of Work Done by Teachers of Each Group with Various Degrees and Ranks

Although the members of the extension staff are secured from various sources and are practically as well qualified, on the whole, as the resident staff, it is important to know the proportionate share of the teaching load carried by the members of each group and by members with various degrees and ranks.

Courses taught by teachers in each group.- Four hundred thirteen courses were offered in Home-Study in 1919-20, 451 in 1928-29, and 425 in 1929-30; during the same years, 121, 305, and 305 classes, respectively, were taught in University College. The percentage of courses in Home-Study and of classes in University College taught by teachers in each group in these three years is given in Figure 13.

As Figure 13 shows, Group 1 teachers are used to a greater extent in University College than in the Home-Study Department;[1]

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[1]It should be pointed out here that in a few cases, courses listed in the Home-Study Announcements as two courses were

Group 2 teachers are not used at all in University College; while Group 3 teachers are used to about the same extent by both organizations. During the last eleven years the tendency in Home-Study has been for a greater use of teachers of Groups 1 and 3 and less of Group 2. University College is now using Group 1 teachers a little less than in 1919-20.

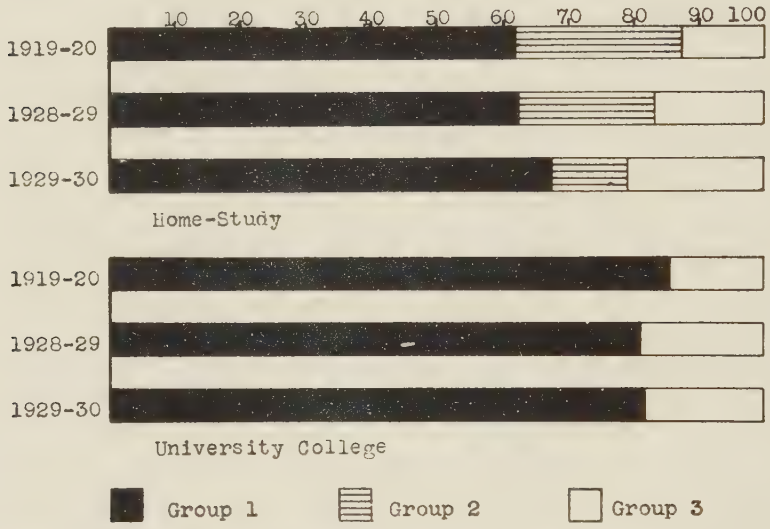

Fig. 13.- Percentage of courses in Home-Study and of classes in University College taught by teachers in each group in 1919-20, 1928-29, and 1929-30. (Group 1, teachers from the Faculties of the University of Chicago who taught both on the Quadrangles and in extension; Group 2, those from the Faculties of the University who taught only in extension; Group 3, those from other faculties and from business and professional fields.)

The situation in Home-Study is somewhat different from that in University College because of the sub-college courses offered. During the last eleven years approximately 40 per cent of these courses were taught by Group 2 teachers. The percentage of these courses taught by Group 3 teachers has increased from 12 per cent in 1919-20 to 52 per cent in 1929-30. The percentage of

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counted as one because of the correspondence to a similar course in residence; e.g., Versification A and B which is English 296. When a number of courses were offered by two persons jointly, only half were counted for each. When a single course was offered by a Group 1 and a Group 2 teacher, the course was considered as being given by the teacher of Group 1.

college courses taught by teachers of Group 1 has increased during the eleven years from 64 to 74. This means that relatively more use is made of Group 3 teachers for the sub-college courses and of Group 1 teachers for college courses.

The extent to which the various departments use teachers of each group presents some interesting contrasts. Table XLI gives the number of courses in each department taught in Home-Study by teachers of Groups 2 and 3 and the number of classes in each department taught in University College by teachers of Group 3 in 1919-20, 1928-29, and 1929-30.

TABLE XLI

DISTRIBUTION BY DEPARTMENTS OF HOME-STUDY COURSES TAUGHT BY GROUPS 2 AND 3 AND OF UNIVERSITY COLLEGE CLASSES TAUGHT BY GROUP 3 IN 1919-20, 1928-29, AND 1929-30*

Department	Number of Home-Study Courses and University College Classes Taught by Each Group								
	1919-20			1928-29			1929-30		
	H-S.[a]		U.C.[a]	H-S.		U.C.	H-S.		U.C.
	2[b]	3	3	2	3	3	2	3	3
English	29	0	4	28	3	11	32	4	9
Divinity	11	6	0	1	13	16	3	14	16
History	8	14	0	0	23	3	0	24	3
Mathematics	0	0	0	23	0	4	25	0	4
Education	12[c]	12[c]	8	0	3	6	0	4	4
Art	3	0	4	11	5	4	11	5	6
Romance Languages	5	1	0	4	6	6	4	9	5
Greek	17	0	-	11	0	-	11	0	-
Sociology and Anthropology	7	1	0	6	2	0	6	1	1
Comparative Literature	4	0	0	9	0	0	9	0	0
Philosophy	0	6	0	0	3	2	8	0	1
Latin	7	0	0	0	0	0	0	11	0
Commerce and Administration	-	-	0	0	9	1	0	6	1
Others[d]	3	12	1	3	8	5	2	2	6
Total	106	52	17	96	75	58	111	80	56

*There were no Group 2 teachers on the University College Staff.

[a]H-S. = Home-Study; U.C. = University College.

[b]The figures 2 and 3 indicate Groups 2 and 3. Group 2 teachers are those secured from the Faculties of the University who taught only in extension; Group 3 teachers were secured from other faculties and from business and professional fields.

[c]Includes courses which were later transferred to the Art Department.

[d]"Others" includes--Psychology, Economics, Political Science, Home Economics, Physics, Chemistry, Botany, Physiological Chemistry and Pharmacology, Hygiene and Bacteriology, Social Service Administration, and Library Science.

The teachers in Groups 2 and 3 of the Home-Study staff are used principally in only about one-third of the departments. None from these groups were used in 1929-30 in the departments of Psychology, Political Science, Anthropology, German, Astronomy, Physics, Chemistry, Geology, Zoology, Physiological Chemistry and Pharmacology, Hygiene and Bacteriology, and Social Service Administration. The departments that used Groups 2 and 3 to the greatest extent in 1929-30 are Philosophy, Commerce and Administration, History, Art, Sociology, Greek, English, Comparative Literature, Mathematics, and Library Science.

Group 3 teachers are used in University College to a greater extent in the departments of Divinity, English, Mathematics, and Library Science than in any of the others.

The teachers in each group carry their proportionate share of the teaching load. In 1929-30, 81.9 per cent of the Home-Study teachers were members of the Faculties of the University and they taught 80.5 per cent of the correspondence-study courses; 81.7 per cent of the University College teachers were members of the University Faculties and they taught 81.6 per cent of the class-study classes. In other words, the use made of the teachers in Group 3 is about in the same proportion to the use made of the teachers in Groups 1 and 2 as the number of teachers in Group 3 is to the number in Groups 1 and 2. Possibly some departments should be encouraged to make less use of Group 3 teachers, but only after a study has been made of the quality of work done by these staff members.

Courses taught by teachers with various qualifications.- The proportionate amount of the teaching that is done by those teachers with lower degrees and ranks shows that no undue use is made of staff members with lower qualifications.

In 1929-30, in the Home-Study Department 61.4 per cent of the teachers held Ph.D. degrees and taught 62.8 per cent of the courses; 84.3 per cent held some other higher degree and taught 85 per cent of the courses; 31.7 per cent held the rank of professor and taught 35.5 per cent; and 72.1 per cent held ranks above instructor and taught 70 per cent.

In the same year, 51.5 per cent of the University College teachers held the Ph.D. degree and taught 53.1 per cent of the classes; 80.5 per cent held some other higher degree and taught 83 per cent of the classes; 21.3 per cent held the rank of professor and taught 21.3 per cent; and 59.1 per cent held ranks above instructor and taught 61 per cent of the classes.

CHAPTER VII

SERVICE LOADS AND SCHOLARLY PRODUCTIVITY OF EXTENSION STAFF MEMBERS

The qualifications of the extension staff members, as indicated by certain criteria, were presented in the preceding chapter. There are two other factors that reveal to some extent the ability of the teachers to perform the duties assigned to them: (1) the various activities performed by each; and (2) the contributions that each has made to scholarly literature. The problems involved here, stated in question form, are: (1) What are the service loads of the several extension teachers? (2) Does the extension teaching of these staff members affect the number of their scholarly contributions? The analysis of service loads is limited to those who taught in the Home-Study Department and/or in University College during the Winter Quarter of 1930 for whom complete data are available. The study of the scholarly contributions is limited to the members of those departments that furnished extension staff members during the ten years, 1919-20 to 1928-29. As some of the teachers in these departments did no extension work during the ten-year period, this procedure provides a method of determining the effect of extension teaching on the number of scholarly contributions.

Service Loads

The service load of a staff member may be defined as the number and kind of activities that he is called upon to perform in connection with his regular duties as described or implied in his contract or in the terms of his employment. Some of these activities may be: teaching one or more classes each quarter, carrying on research, performing administrative functions, doing committee work of a departmental or institutional nature, writing personal recommendations for students, supervising the writing of theses and dissertations, conferring with students, writing and revising books, and working on magazines and journals sponsored by the institution.

In addition to the above activities, there are certain professional, social, civic, and religious obligations that require the attention of the staff members. Some of these are peculiar to their professions and some are expected by society because of their particular fitness to perform such obligations.

Any analysis of the loads must of necessity include these additional activities. In the present study, therefore, the service loads of members of the extension staffs are thought of as including any activity that they perform either for the institution or for some outside agency.

Measurement of load.- Service loads may be measured by counting and weighing the activities performed or by taking account of the time used in the performance of each activity. Either method fails to recognize the mental and physical energy consumed.

The procedure used in this investigation was to learn the various activities performed by each staff member and to secure from him an estimate of the "time and energy" consumed in performing each act.

The data on the loads carried were obtained from the activities checked by the teachers themselves in the returned questionnaires,[1] and from the records in the offices of the Home-Study Department, of University College, and of the Recorder. The staff members were asked to evaluate each type of activity that they were then doing or that they had recently done. Teaching a NEW course on the junior-college level on the Quadrangles was taken as a basis and assumed to be worth 100 units of time and energy. It is recognized that some teachers were not then teaching a NEW junior-college course, but practically all have taught a course of this type since coming to the University Faculties.

Questionnaires were returned by 167 teachers. The number answering any one question is less than this because many were not engaged in each particular type of work and because some did not answer a few questions that they might have answered.

Activities performed.- All[2] the 167 teachers were working on the Quadrangles and many were teaching in University College and/or the Home-Study Department. In addition to their teaching, many performed a number of other activities. Table XLII gives the number who were engaged in each type of activity other than teaching on the Quadrangles and in University College in the Winter Quarter of 1930.

It is evident that the extension teachers perform a number of activities other than class teaching. The number who were engaged in each type of activity other than class teaching ranges

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[1] See Appendix, Sections A and B.

[2] All the 167 teachers either were teaching during the Winter Quarter of 1930 or had taught in the Autumn Quarter of 1929. The data were reported for the Winter Quarter or the last Quarter in residence.

from fifteen to seventy-eight as is shown in Table XLII. Almost one-half of the 167 were engaged in research work other than that in connection with courses that they were then teaching. Almost as many were devoting time to students who were working on Master's theses, and about one-third were giving time to students who were engaged in writing Doctors' dissertations. Other activities, such as "grading papers of correspondence-study students," and "traveling to and from University College" claimed some of the time and energy of a number of them. Many activities were given under question 26, which included "writing, revising, or editing a book," "research," "writing articles, editing," "outside lecturing," "committee work," and "holding conferences with students." No explanation was given to indicate the difference between "research" here and in questions 15 and 16.

TABLE XLII

NUMBER OF EXTENSION TEACHERS ENGAGED IN EACH TYPE OF WORK OTHER THAN CLASS TEACHING IN THE WINTER QUARTER OF 1930

	Type of Work Other Than Class Teaching	Number of Teachers
14.*	Administrative work for which release from one major has been granted	17
15.	Research work for which release from one major has been granted	16
16.	Research work, other than that in connection with a course now being taught, without release from one major	78
17.	Committee work in addition to a full load (2 majors or the equivalent)	44
18.	The writing of personal recommendations as well as those submitted for filing in the placement office	69
19.	Work in connection with dissertations: (a) Master's	75
	(b) Ph.D.	53
20.	Consultative work in reading manuscripts for the University Press	16
21.	All work on some magazine or journal sponsored by the University for which no additional salary is received	24
22.	Preparing and giving one "downtown public lecture"	15
23.	Outlining the lessons for one correspondence-study course (major)	24
24.	Grading the papers for one student in a correspondence-study course (major)	49
25.	Traveling to and from University College while teaching one major	56
26.	Additional types	59

*The numbers correspond to those in the Appendix, Sections A and B.

Value of each activity.- The mean estimated value, in units of time and energy, of each type of class teaching and the differences between the mean values of teaching graduate and senior-college courses and between the mean values of teaching senior-college and junior-college courses are given in Table XLIII. Table XLIV gives the mean estimated value of each type of activity other than class teaching. The values of the various items are the averages, arithmetic means, of the several estimates that these teachers made.[1]

In view of the high reliability of these means, as indicated by their probable errors, they may be used as acceptable measures of the values of the several activities. However, there is some disagreement among authors in regard to what constitutes high reliability as was pointed out on page 51. All the values are more than five times their probable errors except that for activity number 20, which is 3.3. In spite of the fact that all the values with this one exception are statistically significant, some caution should be given against placing too much faith in a few of them because of the small number of cases.[2]

The significant fact is that the values assigned to teaching senior-college courses are higher than those for teaching junior-college courses, and that those given to teaching graduate courses are higher than those assigned for senior-college courses with four exceptions. These are the graduate values assigned to numbers 4, 6, and 10, which are lower than those of the corresponding senior-college courses, and the graduate value assigned to number 13, which is lower than those for the corresponding junior- and senior-college courses. Because the number of estimates in the last case is only eight, little worth can be attached to the value.

The differences between the values assigned to graduate courses and senior-college courses and between senior-college and junior-college courses, as Table XLIII shows, are not statistically large, being less than 3 P. E. in eighteen of the twenty-six cases, 3 P. E. in three, 4 P. E. in four, and over 5 P. E. in one. In fact, the differences are so small in many instances that the chances are almost even that the mean value might be of a graduate course or a senior-college course, or it might be of a senior-college or junior-college course. The tendency, however, is for the values of the upper level courses to be higher than those of

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[1] The number of estimates made on each type of activity performed and the mean value of each with its P.E. are given in the Appendix, Section C.

[2] See Appendix, Section C.

TABLE XLIII

MEAN ESTIMATED VALUE, IN UNITS OF TIME AND ENERGY, OF EACH TYPE OF CLASS TEACHING WORK AND THE DIFFERENCES BETWEEN THE MEANS

Class Teaching	Mean Value, Graduate	Mean Value, Senior-Col.	Difference between Graduate and Senior-College Means	Mean Value, Junior-Col.	Difference between Senior-College and Junior-College Means
1.* Teaching an OLD course on the Quadrangles	89	79	+10 ± 2.44	70	+ 9 ± 1.98
2. Teaching a course on the Quadrangles which is NEW to you but which has been taught by a colleague and for which outlines or other materials are at your disposal	113	92	+21 ± 6.11	86	+ 6 ± 2.00
3. Teaching a NEW course on the Quadrangles, which has not been taught by you or by a colleague	149	126	+23 ± 6.44	100	+26 ± 3.50
4. Teaching another section of the same OLD course (No.1) during the same quarter on the Quadrangles	59	62	- 3 ± 4.69	57	+ 5 ± 3.72
5. Teaching another section of the same course NEW to you (No.2) during the same quarter on the Quadrangles	64	61	+3 ± 5.16	55	+ 6 ± 3.42
6. Teaching another section of the same NEW course (No.3) during the same quarter on the Quadrangles	78	91	-13 ± 6.97	66	+25 ± 5.01
7. Teaching an old course downtown (i.e., at University College)	85	80	+ 5 ± 3.99	76	+ 4 ± 3.61
8. Teaching a course, which is new to you, downtown, but which has been taught by a colleague (No.2)	102	94	+ 8 ± 4.62	86	+ 8 ± 4.07
9. Teaching a NEW course downtown, which has not been taught by you or by a colleague	127	115	+12 ± 4.66	104	+11 ± 2.73
10. Teaching another section of the same OLD course (No.1) during the same quarter downtown	70	74	- 4 ± 5.17	61	+13 ± 4.74
11. Teaching another section of the same NEW course (No.2, new to you) during the same quarter downtown	74	65	+ 9 ± 6.38	63	+ 2 ± 4.99
12. Teaching another section of the same NEW course (No.3) during the same quarter downtown	90	81	+ 9 ±11.10	68	+13 ± 6.66
13. Teaching three sections of the same OLD course concurrently, two on the Quadrangles, one downtown--the value of each	44	61	-17 ± 7.44	60	+ 1 ± 6.95

*See Appendix, Sections A and B.

a lower level.

Some of the differences between the values assigned in Table XLIII to the different types of courses, numbers 1, 2, 3, etc., on the same level are also small and statistically insignificant.

TABLE XLIV

MEAN ESTIMATED VALUE, IN UNITS OF TIME AND ENERGY, OF EACH TYPE OF WORK OTHER THAN CLASS TEACHING

	Work Other Than Class Teaching	Mean Value
14.*	Administrative work for which release from one major has been granted	110
15.	Research work for which release from one major has been granted	142
16.	Research work, other than that in connection with a course which you are now teaching, without release from one major	116
17.	Committee work in addition to a full load (2 majors or the equivalent) during one quarter	23
18.	The writing of personal recommendations as well as those submitted for filing in the placement office DURING ONE QUARTER	64
19.	Work in connection with dissertations: (a) One Master's	22
	(b) One Ph. D.	38
20.	Consultative work or reading manuscripts for the University Press during one quarter	30
21.	All of your work during one quarter on some magazine or journal sponsored by the University for which no additional salary is received	32
22.	Preparing and giving one "downtown public lecture"	19
23.	Outlining the lessons for one correspondence-study course (Major)	80
24.	Grading the papers for one student in a correspondence-study course (Major)	24
25.	Traveling to and from University College while teaching one major	17

*See Appendix, Sections A and B.

The differences between the values of comparable courses taught on the Quadrangles and in University College are given in Table XLV.

When the values assigned to teaching courses on the Quadrangles are compared with the values of comparable courses taught in University College, it is found that the values in University College are higher than those on the Quadrangles in twelve instances, lower in five, and the same in one. In one case the difference is as much as 4 P. E. and in another it is 3 P. E. Although the differences are small and statistically insignificant in most cases, the tendency is for the values of courses taught

in University College to be higher than for comparable courses taught on the Quadrangles.

When the value (17) assigned to "Traveling to and from the University College classes" is added to each of the values for teaching in University College all these values become higher than corresponding values for teaching on the Quadrangles except for teaching a new course on the Graduate level. Therefore, with one exception, teaching a course in University College consumes more time and energy of the staff members than teaching comparable courses on the Quadrangles.

TABLE XLV

DIFFERENCES BETWEEN THE MEAN VALUES OF COMPARABLE COURSES TAUGHT ON THE QUADRANGLES AND IN UNIVERSITY COLLEGE

Type of Course*	Junior-College		Senior-College		Graduate	
	Mean Value	Difference	Mean Value	Difference	Mean Value	Difference
1)	70±1.4	6±2.95	79±1.4	1±2.87	89±2.0	-4±3.05
7)	76±2.6		80±2.5		85±2.3	
2)	86±1.2	0±2.45	92±1.6	2±3.94	113±5.9	-11±6.57
8)	86±1.9		94±3.6		102±2.9	
3)	100±0	4±1.30	126±3.5	-11±4.24	149±5.4	-22±6.72
9)	104±1.3		115±2.4		127±4.0	
4)	57±2.2	4±3.48	62±3.0	-12±4.92	59±3.6	11±4.95
10)	61±2.7		74±3.9		70±3.4	
5)	55±2.1	8±3.42	61±2.7	4±4.99	64±4.4	10±6.51
11)	63±2.7		65±4.2		74±4.8	
6)	66±2.4	2±3.92	91±4.4	-30±7.44	78±5.4	12±10.80
12)	68±3.1		61±6.0		90±9.4	

*The smaller numbers in this column are for courses taught on the Quadrangles and the larger numbers are for courses taught in University College. See Table XLIII for a description of each type of course.

Another comparison that has significance here is that between the value assigned to grading the papers of correspondence-study students and the values assigned to teaching courses on the Quadrangles. The comparison should be made with teaching an OLD course on the Quadrangles, number 1 in Table XLIII, because, as a rule, all correspondence courses have been taught on the Quadrangles and are on the junior- or senior-college level. In many instances the correspondence-study papers which the teachers are grading are for the same courses that they are then teaching on the Quadrangles.

The mean value assigned to grading correspondence-study papers is 24 for one student for one major course or .6 for one lesson paper. The mean values assigned to teaching on the Quadrangles are 70 for an OLD junior-college course and 79 for an OLD senior-college course. This indicates that teaching one such course is equivalent, approximately, to grading the papers of three correspondence-study students, or 120 papers.

In a study now being made by Henry[1] the value assigned to a junior-college course is 4.53 times the value assigned to grading the forty correspondence-study papers and the value of a senior-college course is 4.47 times the value of grading the forty papers, giving a value of approximately 16 to the correspondence work. On this basis, teaching an OLD junior- or senior-college course is approximately equivalent to grading the papers of four and one-half majors or 180 papers.

The value, 24, referred to above, is the mean of the estimates given for grading the forty papers of a major course. With the idea that a teacher's estimate of the value of grading forty correspondence-study papers might be influenced by the total number of papers graded during a quarter, the weighted mean value for grading the papers for one student for one major was found. If a teacher estimated the value to be 20 and graded eighty papers, the frequency was considered 2. The weighted mean value for this activity is 12.5±.47. Using this figure as the value for grading the correspondence-study papers of one major course, teaching an OLD junior- or senior-college course is approximately equal to grading the papers of six major courses, or 240 papers. There is little, if any, evidence, however, to justify the assumption that a teacher's estimate is affected by the number of papers graded, the coefficient of correlation between the number of majors graded and the estimates given being -.03±.106.

A further comparison, on the basis of time consumed, between grading correspondence-study papers and teaching on the Quadrangles is significant. No regulation has ever been made in The University of Chicago concerning the number of hours that a teacher should devote to each course, nor has any study been made of the number of hours given to a course in the University. There are two studies, however, that throw some light on the amount of time spent by teachers in other institutions, one by Koos[2] on the

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[1] N. B. Henry, Unpublished Load Study of the Staff Members of the University for the University Survey.

[2] L. V. Koos, The Adjustment of the Teaching Load in a University, Bulletin, 1919, No. 15, Bureau of Education (Washington: Government Printing Office, 1919), pp. 47, 48, 49. (Derived figure.)

teaching load in a university and one by McMullen[1] on the service load of instructors in teachers colleges. In the former, the average number of hours spent per week by the members of the university staff is 46.8 and in the latter, the average number of hours spent by the members of the teachers college staffs is 42.5.

In the University, the typical load has been thought of as two major courses or the equivalent per quarter. In the Winter Quarter of 1930 the average number of classes taught per instructor was 1.88. Henry reports that the average percentage of time devoted to their teaching activities, by Quadrangles teachers who teach, is 43.29.[2] If it is assumed that the staff members of the University of Chicago spend approximately the same number of hours per week as instructors in other institutions spend, we may conclude that a teacher on the Quadrangles will use ten hours per week in teaching one course or 120 hours during a quarter on one course, 240 hours on two courses. If this 240 hours constitutes 43.29 per cent of his time, he would spend 558 hours per quarter, 46.5 hours per week.

No data are available to show the average time required to grade one lesson paper. On the basis of the time consumed, if grading the papers of three correspondence-study student majors is equivalent approximately to teaching an OLD junior- or senior-college course, the grading of one lesson paper will require one hour; if grading the papers of four and one-half student-majors is equivalent to teaching an OLD junior- or senior-college course, the grading of one lesson paper will require two-thirds of an hour; if grading the papers of six student-majors is equal to teaching an OLD junior- or senior-college course, the grading of one paper will require one-half hour.

The average number of correspondence-study papers graded in the Winter Quarter of 1930 by each of the teachers included in the investigation is approximately 300. At one hour per paper, this would require 300 hours; at two-thirds hour per paper, 200 hours; and at one-half hour per paper, 150 hours. If an instructor spent 300 hours per quarter grading correspondence-study papers, more than four hours per day would be needed for each of the six days in each of the twelve weeks of a quarter. If he spent 150 hours per quarter, it would require over two hours per

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[1] Lynn Banks McMullen, The Service Load in Teacher Training Institutions in the United States (New York: Bureau of Publications, Teachers College, Columbia University, 1927), p. 88.

[2] Henry, op. cit. His use of the term, time and energy, is not exactly comparable with the term, time, used in the other studies quoted.

day. But it would be impossible for some teachers to spend even one-half hour on each lesson paper. For example, one teacher graded 2,262 papers during the Winter Quarter of 1930, another 830, another 713, and another 605 in the same period. Each of these four was carrying a full load on the Quadrangles and two were also teaching in University College at the same time. At one-half hour per paper, 2,262 papers would require 1,131 hours, an average of over 15 hours for each of the six days of the twelve weeks of the Quarter. The grading of 605 papers, at one-half hour per paper, would require 302.5 hours, an average of 4.2 hours for each of the six days of the twelve weeks of the quarter.

Obviously, the assumption that each paper requires one-half hour is too high in some instances. It may not be too high on the average, however, and until further studies are made, one-half hour per paper, the lowest estimate, may be accepted as a conservative index of the amount of time required. The values, 24, 16, and 12.5, do indicate that the grading of correspondence-study papers is apparently an uneconomical use of the teachers' time. There is evidence to show that a few teachers employ assistants who aid in correcting the correspondence-study papers, which procedure would tend to lower the actual loads carried.

There is one compensating feature in grading correspondence-study papers that should be recognized, however. Teachers can grade these papers at more or less odd times. The grading does not have to be done on schedule, and because of this fact, the lessons can be corrected at intervals when the teacher's time is not taken with other activities.

Individual loads.- The preceding discussion has pointed out that the loads carried by some staff members include many and various duties in addition to their teaching activities. Their individual loads, in units of time and energy, which were computed from the figures assigned to each activity in Tables XLIII and XLIV, present some interesting contrasts. The data for only fifty-six teachers were available. The number is limited because some did not indicate what they were doing, some were not teaching on the Quadrangles during the Winter Quarter of 1930, and others did not grade any correspondence-study papers or teach in University College during this Quarter. Only those teachers were included who worked on the Quadrangles and either graded correspondence-study papers or taught in University College and who indicated the "other activities," activities other than class teaching and grading Home-Study papers, in which they were engaged during the Winter Quarter of 1930. A number of the teachers devoted time to students who were working on Masters' theses and Doctors' dissertations. Table XLVI gives the average number of theses and dis-

sertations that claimed the attention of those teachers who advised graduate students in each quarter of the year, 1929-30, and for the whole year.

TABLE XLVI

AVERAGE NUMBER OF THESES AND DISSERTATIONS THAT CLAIMED THE ATTENTION OF THOSE TEACHERS WHO ADVISED GRADUATE STUDENTS IN EACH QUARTER OF 1929-30 AND FOR THE WHOLE YEAR

Quarters and Year of 1929-30	Average Number of	
	Masters' Theses	Doctors' Dissertations
Summer	2.51±.17	1.40±.06
Autumn	1.45±.20	1.09±.06
Winter	2.04±.19	1.16±.11
Spring	1.66±.12	1.36±.06
Year	3.98±.33	1.90±.10

Whenever a teacher indicated that he spent time on theses and dissertations in the Winter Quarter, two theses and one dissertation were counted.

The individual loads of the fifty-six teachers are given in Table XLVII, the loads being based on the mean values of each activity.[1]

The individual loads of the fifty-six teachers, based on the mean values of each activity, range from 298 to 1,842, as Table XLVII shows. The average total load is 581. The largest load, 1,842 units, was carried by a professor who taught two graduate courses on the Quadrangles, graded 2,262 correspondence-study papers, taught a graduate minor in University College, and performed other activities to the extent of 176 units including the work of the secretary of the department. The smallest load, 298 units, was carried by an associate professor who taught two courses on the Quadrangles, did no teaching in University College, graded ten correspondence-study papers, and performed other activities to the extent of 114 units. One teacher, an assistant professor with a load of 914 units, taught three majors on the Quadrangles, graded 345 correspondence-study papers, taught a minor course in University College, and did "other activities" to the extent of 427 units.

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[1]Table LXV in the Appendix, Section F, gives the loads of forty-seven of these teachers. Here the loads are based on the individual estimates for each activity. The number is limited to forty-seven because nine failed to give estimates of some of the activities in which they were engaged.

TABLE XLVII

NUMBER OF EXTENSION ACTIVITIES AND THE INDIVIDUAL LOADS IN UNITS OF TIME AND ENERGY, BASED ON THE MEAN VALUE OF EACH ACTIVITY, OF FIFTY-SIX TEACHERS IN THE WINTER QUARTER OF 1930

Department	Teacher Number	Academic Rank	Home-Study: Number of Outlines Made	Home-Study: Number of Papers Graded	University College: Number of Lectures Given	University College: Classes Taught: Number	University College: Classes Taught: Level[a]	Load in Units: Quadrangles: Classes	Load in Units: Quadrangles: Other Activities[b]	Load in Units: Home-Study: Outlines	Load in Units: Home-Study: Papers Graded	Load in Units: University College: Lectures	Load in Units: University College: Classes	Total
Philosophy	1	Prof.	0	0	5	0		178	347	-	-	95	-	620
	2	Asst.P.	0	0	0	1	S7	168	116	-	-	-	97	381
Psychology	3	Asst.P.	1	160	0	1/2	J7	168	262	80	96	-	47	653
	4	P.	0	513	0	0		267	126	-	308	-	-	701
	5	Asso.P.	0	8	0	1/2	S7	168	125	-	5	-	48	446
Education	6	Teacher	1	146	0	2/3	S9	220	0	80	88	-	48	436
	7	Asso.P.	0	194	0	1	G7	178	247	-	116	-	102	643
	8	Prof.	0	332	0	1	G7	178	262	-	199	-	102	741
	9	Prof.	1	713	0	1/2	G7	168	300	80	428	-	51	1027
	10	Prof.	0	294	0	0		168	256	-	176	-	-	600
	11	Prof.	0	0	0	1	G7	178	285	-	-	-	85	548
	12	Prof.	0	434	0	1	G7	267	339	-	260	-	102	868
	13	Prof.	1	667	0	1	G7	149	108	80	400	-	102	839
	14	Asst.P.	0	830	0	0		189	116	-	498	-	-	803
Economics and Commerce and Administration	15	Lecturer	1	205	0	1	J7	140	146	80	123	-	93	582
	16	Asst.P.	1	40	0	1	S7	149	138	80	24	-	97	488
	17	Asso.P.	0	169	0	0		168	294	-	101	-	-	563
Political Science	18	Asst.P.	0	34	0	1	J7	158	285	-	20	-	93	556
	19	Asst.P.	0	0	0	1	S7	140	285	-	-	-	97	522
	20	Asst.P.	0	0	0	1	G7	237	311	-	-	-	102	650
	21	Asst.P.	0	345	0	1/2	S7	231	427	-	207	-	49	914
History	22	Asso.P.	0	0	0	1	S7	228	247	-	-	-	97	572
	23	Asso.P.	0	0	0	1	S8	168	109	-	-	-	97	374
	24	Inst.	0	0	0	1/2	S7	140	159	-	-	-	49	328
	25	Prof.	0	0	0	1	S7	168	224	-	-	-	97	489
	26	Asso.P.	0	0	0	1/2	S7	189	146	-	-	-	49	384
	27	Asst.P.	0	0	0	1	S7	159	160	-	-	-	97	416
Sociology	28	Prof.	0	40	0	0		336	347	-	24	-	-	707
	29	Prof.	0	0	0	1	S7	168	347	-	-	-	97	612
Home Economics	30	Asst.P.	0	200	0	1/2	G7	168	151	-	120	-	148	567
						1	S7							
Divinity	31	Prof.	0	27	0	0		178	347	-	16	-	-	541
	32	Prof.	0	47	0	0		178	262	-	28	-	-	468
	33	Asso.P.	1	40	0	0		178	253	80	28	-	-	539
	34	Asso.P.	0	15	0	1	G7	178	198	-	9	-	102	487
Romance Languages	35	Asso.P.	0	868	0	0		140	52	-	521	-	-	713
	36	Asso.P.	0	0	0	1	J7	168	364	-	-	-	93	525
	37	Asso.P.	0	0	0	1	J7	168	138	-	-	-	93	399
	38	Prof.	0	0	0	1	S7	159	48	-	-	-	97	304
German	39	Inst.	0	385	0	1	J7	210	0	-	231	-	93	534
	40	Asso.P.	0	605	0	1	S7	140	146	-	363	-	97	746
	41	Asst.P.	1	148	0	0		210	64	80	89	-	-	443
English	42	Asso.P.	0	529	0	1	S7	149	202	-	317	-	97	765
	43	Prof.	1	2262	0	1/2	G7	178	176	80	1357	-	51	1842
	44	Asst.P.	0	20	2	1/2	S7	158	163	-	12	38	49	420
Physics	45	Inst.	0	0	0	2/3	J7	212	292	-	-	-	91	595
						2/3	S10							
	46	Inst.	0	120	0	0		140	138	-	72	-	-	350
Chemistry	47	Asst.P.	0	0	1	0		212	240	-	-	19	-	471
	48	Asso.P.	0	104	0	0		231	164	-	62	-	-	457
Geology	49	Asso.P.	1	84	0	0		168	299	80	50	-	-	597
	50	Prof.	1	23	0	0		159	82	80	14	-	-	335
Botany	51	Asst.P.	0	14	0	0		178	210	-	8	-	-	396
	52	Prof.	0	0	0	1	J7	178	262	-	-	-	89	529
	53	Asso.P.	0	10	0	0		178	114	-	6	-	-	298
	54	Asso.P.	0	0	0	1	J7	140	183	-	-	-	93	416
Zoology	55	Prof.	0	493	0	1/2	J7	231	233	-	296	-	47	807
Hyg. and Bact.	56	Inst.	0	0	0	1	S7	221	224	-	-	-	97	542
Total			11	11,124	8	33-2/3		10,231	11,379	880	6,672	152	3,235	32,549
Average				309				183	203		185		83	581

[a] J, S, G--Junior-college, Senior-college, and Graduate, respectively. 7, 8, 9, 10--Refer to types of work in Table XLIII.

[b] Activities other than teaching on the Quadrangles, in University College, and in Home-Study.

Some of these loads seem unusually large, if not impossible, unless the teachers employ assistants who aid in correcting the correspondence-study papers, as was pointed out earlier.

A comparison of the average loads as derived from the mean values of the activities with the average loads based on the individual estimates may have some value in determining a basis for computing the loads of staff members. The average number of papers graded and the average loads in units based on the mean value[1] and on the individual estimate[2] of the value of each activity are given in Table XLVIII.

TABLE XLVIII

AVERAGE NUMBER OF PAPERS GRADED AND LOADS IN UNITS BASED ON THE MEAN VALUE OF EACH ACTIVITY AND ON THE INDIVIDUAL ESTIMATES OF THE VALUES OF THE ACTIVITIES

Basis of Computation	Average Number of Home-Study Papers Graded	Average Load in Units				
		Quadrangles Classes	Other Activities*	Home-Study Papers	University College Classes	Total Load
Averages of 56 teachers based on mean values of the activities	309	183	203	185	83	581
Averages of 47 teachers based on their individual estimates of the values of the activities	335	188	210	175	88	581

*Activities other than teaching on the Quadrangles, in University College, and in Home-Study.

This table shows that as a measure of the service loads of the extension teachers as a whole, using the mean values assigned to the activities gives about the same results as using the individual estimates. The greatest difference is that between the averages of the loads in Home-Study. The differences between the averages also show the reliability of the samplings. Whether one base or the other should be used in determining the loads of staff members may be left to administrative expediency.

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[1] See Table XLVII.

[2] See Table LXV, Appendix, Section F.

The differences between the average loads carried by teachers with various ranks show that, on the whole, those with higher ranks carry larger loads. Of the fifty-six teachers in Table XLVII, the average load according to rank is: of the eighteen professors 699; of the seventeen associate professors 525; of the fourteen assistant professors 549; of the five instructors 470; and of the two others 509, 582 for the lecturer and 436 for the teacher in the Laboratory Schools. A load higher than the average was carried by twenty-two of the fifty-six teachers, distributed according to rank as follows: eleven or 61 per cent of the professors, five or 29 per cent of the associate professors, four or 29 per cent of the assistant professors, one or 20 per cent of the instructors, and one lecturer. All the twenty-two, except four, graded Home-Study papers and sixteen of the twenty-two taught in University College. The thirty-four teachers with loads below the average are distributed as follows: seven or 39 per cent of the professors, twelve or 71 per cent of the associate professors, ten or 71 per cent of the assistant professors, four or 80 per cent of the instructors, and one teacher in the Laboratory schools.

The average loads of the "other activities" of the twenty-two teachers are: professors 249, associate professors 189, assistant professors 279, and instructors 292. The thirty-four teachers with total loads below the average are distributed, according to "other activities," as follows: professors 216 units, associate professors 195, assistant professors 179, and instructors 125.

Departmental loads.- Only eighteen departments[1] are represented by the fifty-six teachers. The distribution of these staff members and the loads according to departments are given in Table XLIX.

As this table shows, the average loads of teachers in the several departments present some differences. The number of teachers in each department is so small that little weight can be attached to the averages but they may be cited to show possible conditions. The range of the average loads is from 410 in Botany to 1,009 in English. This last average is unusually high because one teacher had a load of 1,437 units in Home-Study work. The five departments with the highest average loads of "other activities" are Sociology, Political Science, Divinity, Zoology, and Philosophy. The differences in average loads are due principally to some departments being represented more in Home-Study work and

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[1]Economics and Commerce and Administration were considered as one department due to the character and allocation of courses.

in University College classes than others while other differences are due to the increased loads in "other activities" in some of the departments.

TABLE XLIX

DISTRIBUTION OF FIFTY-SIX TEACHERS AND THEIR LOADS ACCORDING TO DEPARTMENTS (Based on Table XLVII)

Department	Number of Teachers	Average Total Load*	Number Who Graded Home-Study Papers	Number Who Taught in University College[a]	Average Load of Other Activities[b]
Philosophy	2	500	0	2	232
Psychology	3	600	3	2	204
Education	9	723	8	7	202
Economics and Commerce and Administration[c]	3	544	3	2	193
Political Science	4	661	2	4	327
History	6	427	0	6	171
Sociology	2	660	1	1	347
Home Economics	1	567	1	1	131
Divinity	5	509	4	1	265
Romance Languages	4	488	1	3	123
German	3	574	3	2	70
English	3	1009	3	3	181
Physics	2	473	1	1	215
Chemistry	2	464	1	0	202
Geology	3	466	2	0	191
Botany	4	410	2	2	192
Zoology	1	807	1	1	233
Hygiene and Bacteriology	1	542	0	1	224

*Load in terms of units of time and energy.

[a]Includes those who gave lectures.

[b]"Other activities" means activities other than teaching on the Quadrangles, in University College, and in Home-Study.

[c]The departments of Economics and Commerce and Administration were considered as one department due to the shifting of courses from one to the other during the period covered by this study.

Scholarly Productivity

The second question raised at the beginning of this chapter is--To what extent does work in extension affect the scholarly productivity of these teachers? Productivity is here interpreted to mean the books, articles, and reviews written by the members of the Faculties. To seek an answer to this question, an analysis was made of the productions of all professors, associate professors, assistant professors, instructors, lecturers, associates, assistants, and Laboratory School teachers from those departments

that furnished staff members for the Home-Study Department and/or University College during the ten-year period, 1919-20 to 1928-29.

Measurement of productivity.- The data used in the analysis were secured from the President's Reports for the ten years, 1919-20 to 1928-29, in which are given the number of books, articles, and reviews written by each Faculty member who reported his productions. All productions of some members of the staff are not given in these Reports and no account is taken of the valuable research that does not culminate in a publication of the results. It is further recognized that there are some studies that require years of research before the results may be published, but as the analysis covers a ten-year period, the procedure used here should be fairly valid. It was felt that these data are indicative of the number of scholarly contributions of the staff members.

The following method was used. A tabulation card was prepared for each staff member which made possible recording where he taught, his rank, and the number of books, articles, and reviews contributed each year.[1] The number of productions of each kind were counted and the number of years each worked on the staff was determined. The average yearly production was found by dividing the total number of each kind of contributions by the total number of years of service during the ten years. These Faculty members were then divided into four groups: (1) those who taught in Home-Study at some time during the ten years but did not teach in University College; (2) those who taught in University College but not in Home-Study; (3) those who taught in both at some time during the period; and (4) those who taught in neither. A tabulation was then made showing the productions according to the rank of each member. The analysis is made on the basis of (1) the average yearly productions according to the four groups, and (2) productivity according to the academic ranks of the members.

Average yearly productions.- Table L and Figure 14 give the average yearly production of books, reviews, and articles of all those faculty members associated with departments that offered work in Home-Study and/or University College during the ten years, according to groups of teachers.

All the faculty members in those departments that furnished teachers for Home-Study and/or University College produced during the ten years 679 books, 2,191 reviews, and 4,031 articles. They worked a total of 3,303 years, giving a yearly average, as Table L shows, of .21 books, .66 reviews, and 1.22 articles by each member.

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[1] See Appendix, Section G.

Those who taught in extension produced, on the average, more books and reviews but less articles than those who did no extension teaching.

TABLE L

AVERAGE YEARLY PRODUCTION OF BOOKS, REVIEWS, AND ARTICLES ACCORDING TO GROUPS OF TEACHERS--THOSE WHO TAUGHT IN HOME-STUDY, IN UNIVERSITY COLLEGE, IN BOTH, AND IN NEITHER DURING THE YEARS, 1919-20 TO 1928-29 (Based on Table LXVI)

Group of Teachers	Average Yearly Number of		
	Books	Reviews	Articles
Teachers who taught on the Quadrangles and			
In the Home-Study Department only	0.19	0.85	0.99
During the years when they taught in Home-Study	.14	.56	.76
During the years when they did not teach in Home-Study	.31	1.48	1.50
In University College only	.22	.83	1.06
During the years when they taught in University College	.21	1.19	.99
During the years when they did not teach in University College	.22	.46	1.13
In both Home-Study and University College	.30	.79	1.09
During the years when they taught in Home-Study only	.18	.75	.95
During the years when they taught in University College only	.42	.62	1.21
During the years when they taught in both	.29	.92	1.17
During the years when they taught in neither	.39	.61	.98
Teachers who taught on the Quadrangles but not in extension during the ten years	.15	.41	1.41
All teachers from those departments that furnished teachers for Home-Study and/or University College during the ten years, 1919-20 to 1928-29	.21	.66	1.22

Some of the teachers who worked in extension did no extension work during a part of the time. During the years when the members of the Home-Study group graded no correspondence-study papers, they produced over twice as many books and reviews and almost twice as many articles as when they did teach in Home-Study. The University College group produced more reviews during the years when they taught in extension than when they did no extension work, but more articles in the years when they did no exten-

sion teaching. Of those who taught both in Home-Study and University College within the ten years, some worked in only one extension organization, in both, and in neither during a part of the time. The greatest number of books and articles was produced during the years when they taught in University College only and the greatest number of reviews was contributed when they taught in both Home-Study and University College. Although it appears that some produced more in years when they did no extension work than in years when they did work in extension, it should be recognized that some of the research and writing might have been done in years when the teachers worked in extension but the materials were not published until the succeeding year.

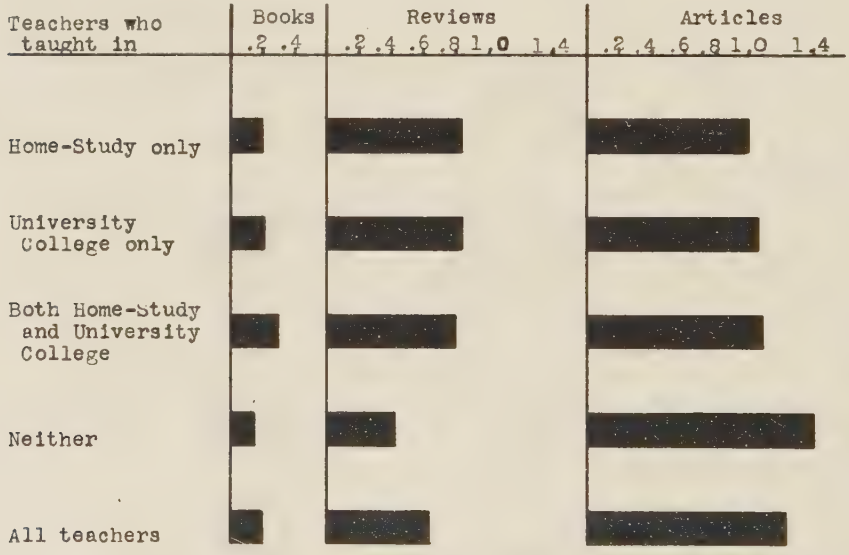

Fig. 14.- Average yearly production according to groups of teachers--those who taught in Home-Study only, in University College only, in both, in neither, and of all teachers during the ten years, 1919-20 to 1928-29.

The fourth group, those who did no extension work during the ten-year period, produced, on the average, fewer books and reviews than any other group except the members of the Home-Study staff when they did no extension work. The difference here is too small to be significant. The members of this group wrote more articles than any other group except the Home-Study staff when they did not teach in Home-Study.

An examination of Table L shows that the average productivity of those teaching in extension is on the whole no less than those doing no extension teaching.

Productivity according to academic rank.- The preceding statement is true irrespective of the academic ranks of the teachers. The data on this point are given in Table LI. Figure 15 gives the average annual productivity of members with ranks of associate and above. The data were divided in this manner because all teachers with the rank of associate and above are members of the Faculties of the University.[1]

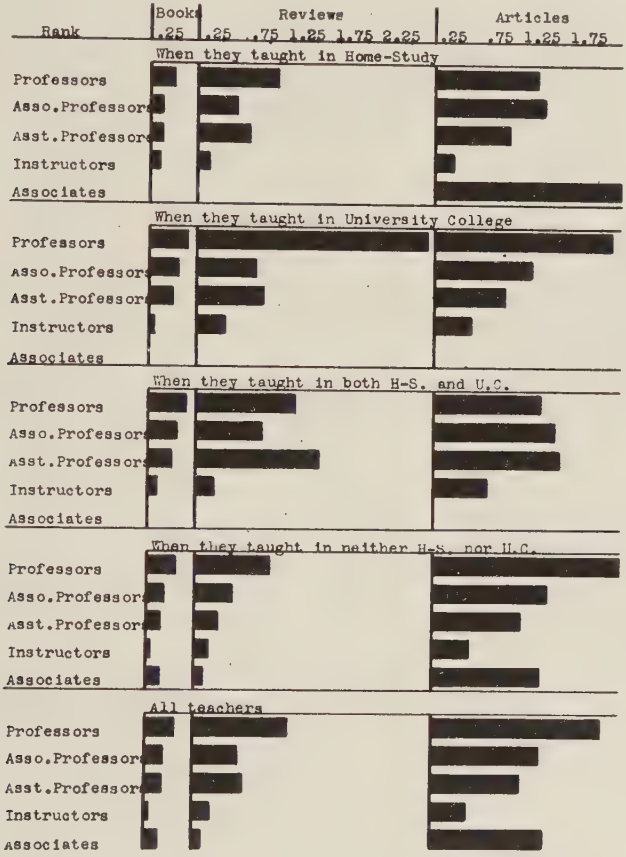

Fig. 15.- Average yearly production, according to academic rank, of the members of those departments offering work in Home-Study and in University College during the ten years, 1919-20 to 1928-29.

Table LI and Figure 15 show that on the basis of total productions the staff members with higher academic ranks produced more than those with lower ranks with few exceptions. The associate professors who taught in both Home-Study and University Col-

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[1]The University Ruling Bodies, 1929-30, op. cit., p. 5.

TABLE LI

AVERAGE ANNUAL PRODUCTIVITY OF THE FACULTY MEMBERS OF THOSE DEPARTMENTS THAT PROVIDED EXTENSION TEACHERS DURING THE TEN YEARS, 1919-20 TO 1928-29, ACCORDING TO ACADEMIC RANK

Rank	Average Number of Productions of Faculty Members When They Taught in												Average Number Produced by All		
	Home-Study			University College			Both Home-Study and University College			Neither Home-Study nor University College					
	B[a]	R	A	B	R	A	B	R	A	B	R	A	B	R	A
Professors (1296)[b]	0.24	0.84	1.11	0.38	2.43	1.90	0.42	1.06	1.16	0.29	0.80	2.01	0.30	1.02	1.79
Associate Professors (622)	.13	.42	.93	.31	.62	1.05	.30	.71	1.29	.17	.39	1.23	.20	.47	1.15
Assistant Professors (748)	.12	.55	.80	.24	.69	.74	.26	1.29	1.37	.15	.24	.94	.18	.53	.95
Instructors (755)	.09	.11	.19	.06	.29	.42	.10	.20	.57	.02	.15	.39	.04	.17	.38
Associates (74)	.00[c]	.00	2.00	-[d]	-	-	-	-	-	.14	.10	1.16	.14	.10	1.19
Others[e] (898)	.03	.09	.16	.02	.04	.12	.07	.38	.58	.07	.57	1.17	.05	.08	.64

[a] B = Books, R = Reviews, A = Articles.

[b] Figures to be read as follows: 1,296 professors for one year or one professor for 1,296 years, etc.

[c] 0 = no productions.

[d] - = no data.

[e] "Others" includes the Assistants, Lecturers, and Teachers in the University High School and Elementary School who taught at some time in Home-Study or University College, in both, or in neither.

lege produced more articles than the professors in this group; the assistant professors who taught in Home-Study only contributed more reviews than the associate professors; the assistant professors who taught in University College only produced more reviews than the associate professors; and the assistant professors who taught in both produced more reviews and articles than the professors and associate professors in this group. There are a few other differences in favor of those with lower ranks but with these exceptions, the teachers with higher academic ranks produced more than those with lower ranks. This is true whether the staff members taught in Home-Study, University College, in both, or in neither.

Table LII gives the average yearly productions of various groups of the fifty-six teachers who had loads above the average.

TABLE LII

AVERAGE YEARLY PRODUCTION OF VARIOUS GROUPS OF FIFTY-SIX TEACHERS WITH LOADS ABOVE THE AVERAGE

Group	Average Number of		
	Books	Reviews	Articles
Teachers with total loads above the average (22 teachers)	0.48	1.34	1.47
Teachers who graded above the average number of Home-Study papers (13 teachers)	.43	.73	1.16
Teachers who had loads in University College teaching above the average University College teaching load (28 teachers)	.34	1.22	1.20
Teachers with above-average loads of "other activities"[a] (29 teachers)	.37	1.64	1.60
Teachers with above-average teaching loads on the Quadrangles (16 teachers)	.24	.57	.88
All the teachers (from Table L)	.21	.66	1.22

[a]"Other activities"--activities other than teaching on the Quadrangles, in University College, and in Home-Study.

This table shows that with few exceptions those with the largest loads made more scholarly contributions than "all the teachers" did during the ten years, 1919-20 to 1928-29.

The ten teachers with the largest loads were selected for individual analysis. These ten are also ten of the twenty who graded 160 or more correspondence-study papers during the Winter Quarter of 1930 and teachers who have carried heavy loads each year during their period of service with the University. Table LIII presents the data in regard to these cases.

This table should be read as follows: The first teacher, a professor, has been a member of the Faculty at least ten years;

in the Winter Quarter of 1930 he had a total load of 1,842 units, 178 units on the Quadrangles, 1,437 units in Home-Study, 51 units in University College, 176 units in other activities; he graded 2,262 correspondence-study papers; during the ten years, 1919-20 to 1928-29, he produced no books, a yearly average of .8 of a review, and a yearly average of .5 of an article.

TABLE LIII

INDIVIDUAL LOADS OF TEN TEACHERS, NUMBER OF HOME-STUDY PAPERS GRADED BY EACH, AND THE AVERAGE YEARLY PRODUCTION OF EACH (LOAD DATA FROM TABLE XLVII)

Teacher	Rank	Years in Service	Load in Units					Number Home-Study Papers Graded	Average Yearly Productions		
			Total	Quadrangles Classes	Home-Study	University College	Other Activities[a]		B*	R	A
1	Prof.	10	1842	178	1437	51	176	2262	0.0	0.8	0.5
2	Prof.	10	1027	168	508	43	300	713	.7	2.8	1.8
3	Asst.P.	8	914	231	207	49	427	345	.4	.9	1.8
4	Prof.	10	868	267	260	102	239	434	.1	1.7	1.2
5	Prof.	4	839	149	480	102	108	667	.5	.0	.3
6	Prof.	10	807	231	296	47	233	493	1.1	.0	1.0
7	Asst.P.	4	803	189	498	0	116	830	.0	.0	.0
8	Asso.P.	10	765	149	317	97	202	529	.4	.0	.3
9	Asso.P.	7	746	140	363	97	146	605	.1	.0	1.7
10	Prof.	9	741	178	199	102	262	332	.3	1.8	3.3

[a]"Other activities"--activities other than teaching on the Quadrangles, in University College, and in Home-Study.
*B = Books, R = Reviews, A = Articles.

In only two instances, numbers 1 and 7, could any criticism be made of the productivity of these staff members. Number 7, an assistant professor, produced nothing during the four years in which he was a member of the staff and number 1 produced only an average of .8 of a review and .5 of an article. In these two cases the cause of few productions might be traced to the time spent on Home-Study work. The reader is reminded, however, that these two teachers were rendering services approved by the University. There is a possibility that these services were just as valuable as contributing to the field of knowledge.

The data seem to warrant the conclusion that, except in a few instances, heavy loads do not affect the number of scholarly contributions. It should be recognized that the preceding analysis, however, has taken into account only the number of contributions and not the quality. To make a study of the quality of the productions would require the combined efforts of specialists.

CHAPTER VIII

RELATIVE QUALITY OF STUDENTS' WORK

Determining the quality of work done in educational institutions has been and is difficult because no satisfactory measuring instruments have been devised. However, three types of evidence are available that reveal to some extent the relative quality of work done by students in extension and in residence: (1) the results of other studies, (2) the opinions of the members of the extension staffs of the University, and (3) the grades issued on extension work and on residence work.

Results of Other Studies

There are two unpublished studies on the quality of work done in other institutions by extension students that have a bearing on the question at hand, a Master's thesis on the extension activities of the University of Kentucky by Arthur Harry Larson and a study of the correspondence-study work in teachers colleges.

In Mr. Larson's thesis, the following statements occur.

"In view of the data included in this study two conclusions may be offered:

"1. Extension and correspondence students compare favorably with residence students in ability to do college work. This is shown by the scores made on the reading and vocabulary tests. It is further shown by the estimates faculty members have on this topic.

"2. Extension and correspondence students compare favorably with residence students in achievement. The faculty opinions indicate that they cover the same work as do residence students and secure about the same or higher grades. In addition they spend more time in subject preparation than do residence students which should enable them to make at least a favorable comparison with residence students in achievement."[1]

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[1] Arthur Harry Larson, "A Study of the Relative Ability and Achievement of Class Extension, Correspondence, and Residence Students at The University of Kentucky," An unpublished Master's thesis (Lexington: The University of Kentucky, 1929), pp. 101-102.

In the study made of correspondence-study work[1] the purpose was to determine the relative quality of work done by students who had studied both by correspondence and in residence. Data were received from twenty-four different teachers colleges for 354 students and from Ball State Teachers College for 457 students. The average number of honor points per term-hour of credit[2] in the twenty-four institutions in correspondence-study work is 1.97 and by the same students in residence work it is 1.78. The first average is based on 2,685 term hours of work and the second on 11,435 term hours. The averages for Ball State Teachers College are 1.93 for correspondence work and 2.00 for residence work, based on 2,509 and 26,505 term hours of work, respectively.

These two studies support the conclusion that the quality of work done in extension is little, if any, lower, and possibly higher, than that done in residence.

Opinions of Extension Teachers

As another measure of the relative quality of work done by extension students in the University, the opinions of the Home-Study and University College teachers were secured by means of four questions that were included in the questionnaires[3] sent to the members of these staffs. The number and percentage distributions of their answers is given in Table LIV.

Seventy Home-Study teachers answered question number 1, sixty-nine number 2, seventy-one number 3, and sixty-eight number 4. One hundred twenty-nine University College teachers answered the first question, 128 the second, 102 the third, and ninety-seven the fourth. Seven Home-Study teachers modified their answers to number 2 and answered neither Yes nor No, and twenty-one University College teachers answered Number 1 and two answered number 2 with statements other than Yes or No.

As shown in Table LIV, the consensus of opinion of the Home-Study teachers seems to be that the quality of work done in extension is about the same or possibly a little higher than that done on the Quadrangles, while the opinions of the members of the staff in University College indicate that they think students do a little poorer work in extension than on the Quadrangles.

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[1] Clem O. Thompson, "The Quality of Correspondence Work Compared with the Quality of Residence Work," (Reported at the Cleveland Meeting of the Teachers College Extension Association, February, 1929).

[2] The grading system--A = 3 points, B = 2, C = 1, D = 0, F = 0.

[3] See Appendix, sections A and B.

TABLE LIV

NUMBER AND PERCENTAGE DISTRIBUTIONS OF THE ANSWERS GIVEN BY THE MEMBERS OF THE EXTENSION STAFFS TO QUESTIONS CONCERNING THE RELATIVE QUALITY OF WORK DONE BY EXTENSION STUDENTS

Question	Number and Percentage of Teachers Who Answered in			
	Home-Study Department		University College	
	Yes	No	Yes	No
Numbers 1 and 2				
1. As a group, do the students, doing work by correspondence (or in University College), do as high quality of work as students on the Quadrangles do?	(63)[a] 90	(7) 10	(45) 35	(63) 49[c]
2. Do you feel that correspondence-study (or University College) students are working below their capacity due to the fact that they are, for the most part, engaged in regular employment in addition to their correspondence (or University College) work?	(10) 15	(52) 75[b]	(112) 87	(14) 11[c]
Numbers 3 and 4	Better	Same	Poorer	Better	Same	Poorer
3. Please underline the term at the right (Better-Same-Poorer) that indicates the relative quality of work done by the BEST correspondence-study (or University College) students in comparison with that done by the BEST students on the Quadrangles	(13) 18	(55) 78	(3) 4	(20) 20	(42) 41	(40) 39
4. Please underline the term at the right (Better-Same-Poorer) that indicates the relative quality of work done by the POOREST correspondence-study (or University College) students in comparison with that done by the POOREST students on the Quadrangles	(11) 16	(31) 46	(26) 38	(17) 17	(61) 63	(19) 20

[a]Figures in parentheses indicate the number who answered. The other figures are percentages.

[b]Seven Home-Study teachers answered number 2 with modified statements.

[c]Twenty-one University College teachers answered number 1 and two answered number 2 with statements other than Yes or No.

Grades Issued on Extension and Residence Work

The third type of evidence is secured from the grades issued in the University of Chicago. Here quality of work on the undergraduate level is indicated by the letter grades, A-B-C-D-F, and on the graduate level by the letter grades, H-P-U-F. Numerical or honor point values are assigned to the letters in the first group as follows: A = 6, B = 4, C = 2, D = 0, F = -2. The values assigned to the graduate letter grades are: H = 6.3, P = 3.7, U = 0, F = -2.[1]

The procedure used was to compare the grades received on work done in extension with those received on work done in residence. Data were secured for groups of students who had studied during the same period of time both in extension and in residence and who had studied since the present plan of issuing graduate grades was adopted. Objective data were secured from four sources: (1) the students' grades in all the class reports of fifty-three teachers who had taught during the year 1928-29 both in Home-Study and on the Quadrangles, hereafter called Home-Study teachers; (2) the grades in all the class reports of eighty-four teachers who had taught during the same year both in University College and on the Quadrangles, called University College teachers; (3) the permanent record cards of a sampling of 666 students who had studied during the two years, 1927-29, both in Home-Study and on the Quadrangles, designated as Home-Study students; and (4) the records of a sampling of 760 students who had studied during the same two years both in University College and on the Quadrangles, called University College students.

All letter grades were converted into numerical grades, using the point values assigned. These numerical values were then treated statistically. The assumption underlying such procedure is that the grades are distributed according to the normal probability curve and any computations will obviously be inaccurate to the extent that the distributions vary from the assumption.

The analysis is made on two bases: (1) the extension organization in which the students did their work; and (2) the sources of data, the instructors' reports and the students' permanent records. The following relationships are presented: first, a comparison of the grades issued by the fifty-three Home-Study teachers to Home-Study students with those granted by the same teachers to Quadrangles students, and second, a comparison of the grades received in Home-Study by the 666 Home-Study students with the grades they received on the Quadrangles; third, a comparison of the grades given by the eighty-four University College teachers

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[1] See Appendix E for the method of determining these values.

to University College students with those issued by the same teachers to Quadrangles students, and fourth, a comparison of the grades received in University College by the 760 University College students with the grades they received on the Quadrangles.

Home-Study.- The distribution of the grades issued by the Home-Study teachers in 1928-29 is given in Table LV. This distribution is made both for Home-Study and Quadrangles teaching on the basis of three types of instruction: (1) for all instruction by these fifty-three teachers; (2) for all undergraduate instruction; and (3) for all instruction in the same courses taught both in Home-Study and on the Quadrangles. As all the Home-Study courses are on the undergraduate level, the figures for Home-Study in row two are the same as for all Home-Study work.

TABLE LV

DISTRIBUTION, BY TYPES OF INSTRUCTION, OF THE GRADES, GRADE POINTS, AND MEANS OF THE GRADES ISSUED BY FIFTY-THREE TEACHERS WHO TAUGHT BOTH IN HOME-STUDY AND ON THE QUADRANGLES IN 1928-29 AND THE DIFFERENCES BETWEEN THE MEANS OF HOME-STUDY AND QUADRANGLES GRADES

Type of Instruction	Home-Study			Quadrangles			Difference Between Means
	Number of		Average Grade Points	Number of		Average Grade Points	
	Grades	Grade Points		Grades	Grade Points		
All instruction	1282	5484	4.28 ±.028	6719	24124	3.60 ±.015	0.68±.032
All undergraduate instruction	1282	5484	4.28 ±.028	4514	15132	3.35 ±.017	.93±.033
All instruction in courses taught both in Home-Study and on the Quadrangles	492	2155	4.38 ±.046	1884	6335	3.36 ±.027	1.02±.053

As Table LV shows, the difference between the means[1] of the grades issued on all the instruction in Home-Study and on the Quadrangles by these fifty-three teachers is a little over one-fourth of a letter grade. In the second comparison, that between the undergraduate grades, the difference is almost one-half of a letter grade. In the last comparison, that between the grades

[1]The means are weighted averages.

issued on instruction in Home-Study and on the Quadrangles, where both the teachers and courses were constant the difference is a little over one-half of a letter grade. All the differences are statistically significant and in favor of Home-Study work.

In analyzing the grades received by the 666 Home-Study students who worked both in Home-Study and on the Quadrangles during the two years, 1927-29, comparisons are made on three bases: (1) all the work done; (2) all undergraduate work; and (3) all work in departments in which they studied both in Home-Study and on the Quadrangles. Comparisons are also made for six separate departments and for all the sciences but not for the other departments because the number of cases in each is too small to be statistically significant. The distribution of grades, according to type of work, is given in Table LVI.[1] Here as in Table LV, the figures in the second row under "Home-Study" are the same as those in the first row because all Home-Study work is on the undergraduate level.

All the averages, as Table LVI shows, are in favor of the Home-Study work, the differences between the means ranging from about one-fourth of a letter grade to over three-fourths of a letter grade. In the comparison between the grades received in Home-Study and on the Quadrangles on work in departments in which the students studied both in the Home-Study Department and on the Quadrangles, the students and the departments are constant. Here the difference is 43 per cent of a letter grade.

All the differences between the means of the grades received in each department are statistically significant, more than five times their own probable errors, but the number of cases is too small in each department to permit valid comparisons. The range of differences, from .49 in English to 1.62 in Science, is worth noting. Four of these differences are more than one-half of a letter grade.

The foregoing data show clearly that students receive higher grades when studying by correspondence than when working on the Quadrangles. When the factors, teachers and courses, were constant the difference in favor of students studying by correspondence is over one-half of a letter grade, and when the factors, students and departments, were constant the difference is over two-fifths of a letter grade in favor of work done by correspondence.

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[1] The reader is reminded that in Table LVI each student studied both in extension and on the Quadrangles in each department, Psychology, Education, Botany, Zoology, etc.

TABLE LVI

DISTRIBUTION, ACCORDING TO TYPES OF WORK AND FOR SEVEN DEPARTMENTS, OF THE GRADES, GRADE POINTS, AND MEANS OF THE GRADES RECEIVED BY 666 STUDENTS WHO STUDIED BOTH IN HOME-STUDY AND ON THE QUADRANGLES IN 1927-29 AND THE DIFFERENCES BETWEEN THE MEANS OF THE HOME-STUDY AND THE QUADRANGLES GRADES

Type of Work	Home-Study			Quadrangles			Difference between Means
	Number of		Average	Number of		Average	
	Grades	Grade Points	Grade Points	Grades	Grade Points	Grade Points	
All work	1,719	7,667	4.46 ±.013	8,887	31,277	3.52 ±.019	0.94 ±.023
All undergraduate work	1,719	7,667	4.46 ±.013	8,483	29,630	3.49 ±.013	.97 ±.018
All work in departments in which they studied both in Home-Study and on the Quadrangles	1,061	4,840	4.56 ±.028	2,875	10,636	3.70 ±.022	.86 ±.036
Psychology[a]	20	94	4.70 ±.158	55	226	4.15 ±.152	.55 ±.219
Education	289	1,425	4.95 ±.048	867	3,290	3.79 ±.034	1.16 ±.059
History	127	537	4.25 ±.070	287	904	3.15 ±.080	1.10 ±.106
French and Spanish	60	271	4.52 ±.141	125	461	3.69 ±.107	.83 ±.177
English	333	1,362	4.10 ±.048	738	2,661	3.61 ±.035	.49 ±.059
Mathematics	69	341	4.94 ±.092	136	525	3.86 ±.110	1.08 ±.143
Science[b]	66	315	4.81 ±.160	186	591	3.19 ±.112	1.62 ±.195

[a]Each student studied both in Home-Study and on the Quadrangles in each department, Psychology, Botany, etc. All the work in the several departments was on the undergraduate level.

[b]Includes courses in Botany, Zoology, and Chemistry.

University College.- The distribution of the grades issued by the University College teachers in 1928-29 is presented in Table LVII. This distribution is made both for University College and Quadrangles teaching according to (1) all instruction, (2) all undergraduate instruction, (3) all graduate instruction, and (4) all instruction in the same courses taught both in University College and on the Quadrangles.

None of the differences between the means of the grades issued on University College and on Quadrangles work is as much as one-eighth of a letter grade, as Table LVII shows. Three are in

favor of University College work and one is in favor of work on the Quadrangles, but the last is not statistically significant. The comparison in which the courses and instructors are constant, in row four, shows that the difference between the means is slightly in favor of work done in University College.

TABLE LVII

DISTRIBUTION, BY TYPES OF INSTRUCTION, OF THE GRADES GRADE POINTS, AND MEANS OF THE GRADES ISSUED BY EIGHTY-FOUR TEACHERS WHO TAUGHT BOTH IN UNIVERSITY COLLEGE AND ON THE QUADRANGLES IN 1928-29 AND THE DIFFERENCES BETWEEN THE MEANS OF THE UNIVERSITY COLLEGE AND QUADRANGLES GRADES

Type of Instruction	University College			Quadrangles			Difference between Means
	Number of		Average	Number of		Average	
	Grades	Grade Points	Grade Points	Grades	Grade Points	Grade Points	
All instruction	2547	8612	3.38 ±.021	6199	20042	3.23 ±.014	.15 ±.025
All undergraduate instruction	2121	6882	3.24 ±.024	5068	15327	3.02 ±.016	.22 ±.029
All graduate instruction	426	1730	4.06 ±.037	1131	4715	4.17 ±.018	.11 ±.041*
All instruction in courses taught both in University College and on the Quadrangles	1354	4578	3.38 ±.029	1752	5571	3.18 ±.027	.20 ±.040

*Difference in favor of Quadrangles instruction.

The distribution of the grades received by the 760 students who had studied both in University College and on the Quadrangles in 1927-29 is presented in Table LVIII. The first four rows give the distribution for (1) all the work, (2) all undergraduate work, (3) all graduate work, and (4) all work in departments in which the students studied both in University College and on the Quadrangles, while the remaining rows give the distribution for eleven departments, the number of cases in each of the other departments being too low to justify statistical analysis.

As Table LVIII shows, there is little difference between the averages of the grades received by these 760 students in University College and on the Quadrangles. Of the first four differences, only one is more than one-tenth of a letter grade and it is not statistically significant. Greater variations are shown between the grades received in individual departments than are

shown in the larger groups, but none is greater than four times its P.E.

TABLE LVIII

DISTRIBUTION, BY TYPES OF WORK AND FOR ELEVEN DEPARTMENTS, OF THE GRADES, GRADE POINTS, AND MEANS OF THE GRADES RECEIVED BY 760 STUDENTS WHO STUDIED BOTH IN UNIVERSITY COLLEGE AND ON THE QUADRANGLES IN 1927-29 AND THE DIFFERENCES BETWEEN THE MEANS OF THE UNIVERSITY COLLEGE AND QUADRANGLES GRADES

Type of Work	University College			Quadrangles			Difference between Means
	Number of		Average	Number of		Average	
	Grades	Grade Points	Grade Points	Grades	Grade Points	Grade Points	
All work	3606	13360	3.70 ±.027	4169	15330	3.68 ±.018	.02±.032
All undergraduate work	3245	11832	3.64 ±.019	3494	12584	3.60 ±.020	.04±.028
All graduate work	361	1528	4.22 ±.049	675	2746	4.07 ±.030	.15±.057
All work in departments in which they studied both in University College and on the Quadrangles	1851	7115	3.84 ±.024	1985	7641	3.85 ±.024	.01±.034*
Philosophy	12	39	3.25 ±.292	13	41	3.14 ±.181	.11±.343
Psychology	17	55	3.31 ±.332	27	82	3.10 ±.281	.22±.427
Education	553	2174	3.93 ±.041	671	2662	3.97 ±.038	.04±.056*
History	269	859	3.20 ±.065	182	586	3.22 ±.077	.02±.101*
Art	44	165	3.75 ±.143	46	199	4.32 ±.153	.57±.209*
Sociology	46	160	3.51 ±.121	44	165	3.75 ±.125	.24±.174*
Romance Languages	98	469	4.78 ±.165	51	235	4.61 ±.144	.17±.219
German	29	106	3.66 ±.212	33	141	4.28 ±.147	.62±.277*
English	193	830	4.31 ±.096	167	623	3.73 ±.119	.58±.153
Mathematics	60	225	3.78 ±.014	44	156	3.59 ±.188	.19±.189
Science**	199	850	4.26 ±.084	346	1497	4.33 ±.059	.07±.102*

*Differences in favor of grades received on the Quadrangles.

**Includes courses in Botany, Chemistry, Physics, Geography, Geology, Bacteriology, Zoology, and Physiological Chemistry and Pharmacology. Each student studied both in University College and on the Quadrangles in the same department.

The quality of work done in University College, as indicated by grades, is about the same as that done on the Quadrangles. When the factors, teachers and courses, are constant the difference, two-tenths of a grade point, is in favor of studying in University College, and when the factors, students and departments, are constant the difference, only one-hundredth of a grade point, is in favor of work done on the Quadrangles.

TABLE LIX

GRADE POINT SCORES THAT MAY BE PREDICTED FROM COMPARABLE MEASURES

Comparable Measures	Correlation Coefficients and Ratios	Regression Coefficients	Predicted Grade Points[a]
Average grades issued by each Home-Study teacher in courses taught both on the Quadrangles (x) and in Home-Study (y)	r = .437	$\bar{x} = .311y \pm .419$ $\bar{y} = .694x \pm .588$	4 grade points in H-S indicates $3.68 \pm .42$ grade points on the Q. 4 grade points on the Q indicates $4.53 \pm .59$ grade points in H-S.
Average grades issued by each University College teacher in courses taught both on the Quadrangles (x) and in University College (y)	r = .507	$\bar{x} = .601y \pm .382$ $\bar{y} = .427x \pm .322$	4 grade points in U.C. indicates $3.60 \pm .38$ grade points on the Q. 4 grade points on the Q indicates $3.90 \pm .32$ grade points in U.C.
Average grades received by Home-Study students who studied both on the Quadrangles (x) and in Home-Study (y)	$\eta xy = .680$	$\bar{x} = .41y \pm .950$ $\bar{y} = .299x \pm .820$	4 grade points in H-S indicates $3.20 \pm .95$ grade points on the Q. 4 grade points on the Q indicates $4.59 \pm .82$ grade points in H-S.
Average grades received by University College students who studied in the same departments both on the Quadrangles (x) and in University College (y)	$\eta xy = .510$	$\bar{x} = .468y \pm .830$ $\bar{y} = .377x \pm .747$	4 grade points in U.C. indicates $3.49 \pm .83$ grade points on the Q. 4 grade points on the Q indicates $3.92 \pm .75$ grade points in U.C.

[a] 4 grade points is the value of a B grade. H-S stands for Home-Study, U.C. stands for University College, and Q stands for Quadrangles.

Scores predicted from comparable measures.- The scores that may be predicted from the most comparable measures are given in Table LIX.

As Table LIX shows, Home-Study grade points predicted from the Quadrangles grades issued by the Home-Study teachers and received by Home-Study students are higher than Quadrangles scores predicted from Home-Study grades issued and received on Home-Study work, the differences between the predicted scores being .68 to 1.02 and 1.42 to 1.26. University College grade points predicted from the Quadrangles grades given by University College teachers and received by University College students are a little higher than Quadrangles scores predicted from University College grades given and received on University College work, the differences being .36 to .24 and .51 to .35. That is, the chances are even that students will receive higher grades in Home-Study and University College than they will on the Quadrangles but the differences are much more in favor of students receiving higher grades in Home-Study than in University College.

The data support the opinions of the Home-Study teachers that students do better work by correspondence than they do on the Quadrangles. The data do not agree so closely, however, with the opinions of the University College teachers who stated that they thought extension students did not do so well in extension as on the Quadrangles.

CHAPTER IX

COST OF THE EXTENSION PROGRAM

The extension program is carried on, for the most part, on a self-supporting basis. Without charge the University provides for each of the four extension organizations office space, services for the keeping of students' records, business and financial management, and administrative guidance. It also appropriates a small amount each year for the expenses of The American Institute of Sacred Literature and for the Radio Department. Except for this assistance each unit must finance its own activities. The Home-Study Department and University College not only provide their own funds, but also turn into the General University Fund large sums of money received as matriculation fees.

The cost of the extension program is considered from three points of view: (1) financing the program, (2) the service-load cost, and (3) proposed fees.

Financing the Program

Two aspects of financing the program are analyzed: (1) the sources of the funds, and (2) the relation of the income to the expenditures.

Sources of funds.- The sources of funds vary with each organization as each operates independently.

The Home-Study Department secures all its income from its students. Table LX gives the sources of the Department's receipts.

The fees charged are $12.50 for one minor course, $25.00 for one major, but $47.00 for two majors and $65.00 for three majors if the student pays for the two or three in one remittance. The amount charged for completing residence work *in absentia* is $2.50 for the final examination and $1.00 for each week of work completed by correspondence. The fee charged for granting an extension of time in which to complete a course is $5.00 for a major and $2.50 for a minor. The matriculation fee, $10.00,[1] required of all new students, is not retained by the Department but turned into the General University Fund.

University College receives its funds from student fees and the sale of lecture tickets. The course fees are $12.50 for

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[1] The matriculation fee is now $20.00.

a minor and $25.00 for a major. An additional charge of $1.00 is made for late registration during the first week and $5.00 for registration or change of program after the first week. The lecture-series tickets cost $3.00 for ten or eleven lectures, or $1.50 for five or six lectures. The average cost per lecture to purchasers of series tickets is about thirty cents. Single admissions are fifty cents. The matriculation fees here as in the Home-Study Department are turned into the General University Fund.

TABLE LX

SOURCES OF FUNDS USED FOR PAYING TEACHERS AND FOR OTHER EXPENSES IN THE HOME-STUDY DEPARTMENT

Fees Charged	Amount Paid to Teachers		Balance for Other Expenses
1 minor. $12.50	20 lessons at 40¢	$8.00	
	Royalty*	1.00	$3.50
1 major. 25.00	40 lessons at 40¢	16.00	
	Royalty	2.00	7.00
2 majors 47.00	80 lessons at 40¢	32.00	
	Royalty	4.00	11.00
3 majors 65.00	120 lessons at 40¢	48.00	
	Royalty	6.00	11.00
1 examination on residence work . . 2.50	Grading paper	1.70	.80
Lessons for 1 week of residence work 1.00	Grading papers	.75	.25
1 minor renewal. . 2.50			2.50
1 major renewal. . 5.00			5.00
Fees on lessons not completed at 40¢**			

*Royalty--The author of each course outline receives $2.00 for each major registration and $1.00 for each minor registration.

**In 1929-30, there were 1,745 registrations that were dropped. (The President's Report, 1929-30 (Chicago: The University of Chicago Press, 1931), p. 312.) In Chapter IV it was pointed out that approximately 10 per cent of the lessons were completed by those who drop their work. This would mean that of the lessons involved in the 1,745 registrations, 62,820 were not completed which would provide approximately $25,128 for other expenses.

The American Institute of Sacred Literature receives $2,500 annually from the University, but is dependent upon gifts, receipts from the sale of The Institute courses and pamphlet literature, and the income from an endowment of $10,350 for the remainder of its funds. To this endowment nucleus has been added a bequest of an annuity basis of approximately $60,000 which will

be available later. In 1929-30, the gifts amounted to $6,859.10. Of this total, $3,722.55 was contributed in amounts ranging from $2.00 to $200.00. The remainder, $3,086.55, was given by one donor, who, for some years, has added $45 to every $55 received from other contributors.[1]

The radio programs are financed from funds appropriated by the University, received from donors, and in part by the Chicago Daily News and the National Broadcasting Company. The University appropriated $5,200 for the year 1931-32, to which amount was added $600 received from gifts.

Relation of income to expenditures.- Each extension unit organizes its own budget on the basis of predicted income.

In the Home-Study Department any instructional expenses incurred are accompanied by a definite income which leaves a surplus that may be used toward the payment of expenses other than teachers' salaries. The amount of this surplus is determined by the number of registrations and the number of registrations paid for in one remittance. As was shown in Table LX, a certain portion of the registration fees is allocated for other expenses.[2] The greater the number of registrations, the greater will be the amount of the surplus, the surplus being proportionately less, however, when two or three registrations are paid for at one time. If more students carried to completion the courses for which they register, some funds now used for other expenses would not be available for this purpose.

The receipts of the Home-Study Department, as reported by the Secretary, and the expenses, as listed by the Comptroller, for the eleven years, 1919-20 to 1929-30, are given in Figure 16.

The receipts, as Figure 16 shows, have increased during the eleven years from over $76,000 in 1919-20 to almost $108,000 in 1929-30. In 1926-27 the amount of the receipts reached the highest point, a total of almost $116,000.

The annual expenditures were slightly less than the receipts, except for three years, 1923-24 to 1925-26. In Figure 16 the expenditures are divided between two items, instructional salaries and other expenses. During the eleven years the amount devoted to salaries for instruction has remained approximately between 50 and 60 per cent of the total expenses with an average of 56.7 per cent. In the last three years the tendency is slightly toward a smaller proportion being spent for instruction.

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[1] In 1931-32 this amount will be reduced to $35 for every $50 and in the following year and thereafter it will be reduced to $25 for every $50.

[2] Expenses other than for teachers' salaries.

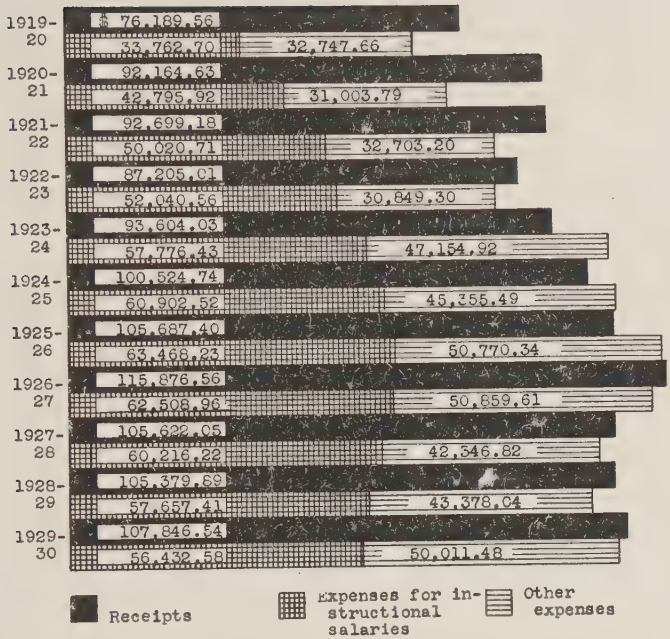

Fig. 16.- Receipts and expenditures in the Home-Study Department during the eleven years, 1919-20 to 1929-30.

The situation in University College is somewhat different where the item of rent for the downtown quarters as well as other non-instructional expenses must be considered. In addition there is the possibility of some instruction not being self-supporting due to small enrolments. The Dean of the College is sometimes forced to cancel courses if the deficits incurred by too small enrolments are not removed by the larger enrolments in other classes.

The receipts and expenditures of University College, as reported by the Comptroller, are presented in Figure 17.

As Figure 17 shows, the income of University College increased each year during the eleven-year period. The expenses were less than the receipts each year, the annual balances ranging from $2,760.90 in 1927-28 to $20,501.81 in 1922-23. The proportion devoted to instructional salaries has decreased approximately 11 per cent during the eleven years. One cause of this decrease is the cost of administering the public lectures, an item considered separately from instruction.

The policy of The American Institute of Sacred Literature is expressed in the following statement found in the Bulletin of Information.

"The question is frequently raised as to whether the work of The Institute pays for itself. The Institute is a department of an educational institution. The question, 'Will it pay?' is never raised except in the sense of, 'Will it succeed in reaching a large number of people?'"[1]

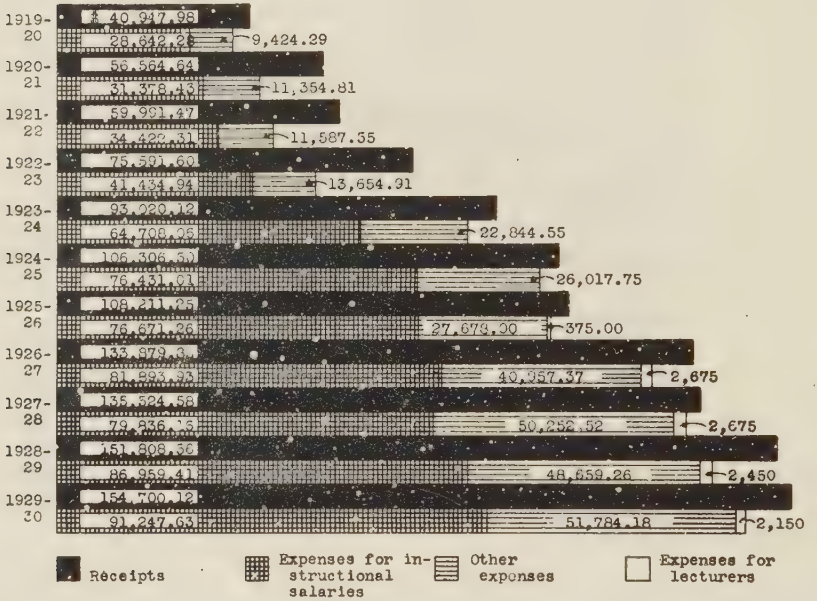

Fig. 17.- Receipts and expenditures in University College during the eleven years, 1919-20 to 1929-30.

The financial status of The Institute during the eleven years, 1919-20 to 1929-30, has been somewhat less satisfactory than that of the Home-Study Department and of University College. During the eleven-year period the income exceeded the expenses in five years and was less in six years. The accumulated balances, however, provided $1,687.21 with which to begin the year, 1930-31. The expenses of The Institute have increased during the eleven-year period from $3,981.06 in 1919-20 to $15,607.94 in 1929-30.

The Director of the Radio Department, knowing in advance the amount of the possible receipts unless surprised by some cheerful giver, plans programs within the budget, holding a small surplus back for emergencies that appear in broken lines, worn out tubes, etc. Approximately $4,500 of the $5,800 is expended for

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[1] The American Institute of Sacred Literature, Bulletin of Information, 1929-30 (Chicago: The University of Chicago Press, 1929), p. 15.

administration, the remaining funds being used for the replacement of equipment and for stipends given to those who appear on the programs.

Table LXI is a consolidation of the financial statements of three of the extension units for 1929-30. The percentage distribution of the expenditures of these organizations, according to the type of expenses, is given in Figure 18.

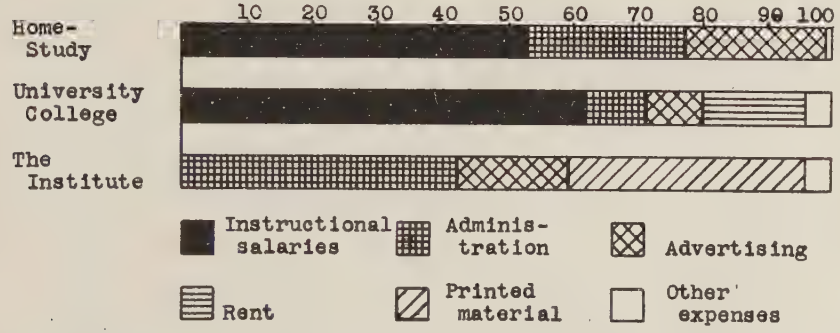

Fig. 18.- Percentage distribution of the expenditures in each of three extension organizations in 1929-30. (Instruction in University College includes the percentage spent for lecturers; 1.5 per cent of the total.)

As Table LXI and Figure 18 show, the largest single item of expense in Home-Study and University College is for instructional salaries, the latter spending proportionately more than the former. The Institute, which gives nothing to those who prepare the outlines and tract literature, spends relatively more for administration than for any other item, almost twice as large a percentage as Home-Study and over four times as much, proportionately, as University College. Other differences are: first, Home-Study devotes over one-fifth of its expenses to advertising, The Institute a little over one-sixth, and University College only about one-twelfth; second, about one-sixth of the expenses of University College goes for rent while neither of the other organizations spends anything for this item; and third, a considerable portion of the expenses of The Institute are for the printing of books and pamphlets, a cost item not found in the expenditures of the other organizations.

The percentage of expenditures used for instruction and for other expenses in each of the eleven years in Home-Study and University College is given in Figure 19.

A comparison of the costs in Home-Study and University College, as revealed in Figure 19, shows that each year University

TABLE LXI

CONSOLIDATION OF THE FINANCIAL STATEMENTS OF THE HOME-STUDY DEPARTMENT, UNIVERSITY COLLEGE, AND THE AMERICAN INSTITUTE OF SACRED LITERATURE FOR THE YEAR ENDING JUNE 30, 1930

Source of Income and Item of Expenditure	Home-Study Department		University College		The American Institute of Sacred Literature	
	Receipts	Expenses	Receipts	Expenses	Receipts	Expenses
From the University	-	-	-	-	$2,500.00	-
Course fees, renewals, changes in registration, etc.	$107,846.54	-	$145,216.00	-	5,543.22	-
Lecture tickets	-	-	9,484.12	-	-	-
Gifts	-	-	-	-	6,859.10	-
Salaries:						
Administration	-	$24,935.07	-	$13,196.88	-	$6,495.36
Instruction	-	56,432.58	-	91,247.63	-	-
Lecturers	-	-	-	2,150.00	-	-
Advertising, including stationery, postage, and printing of materials	-	23,591.01	-	12,580.40	-	2,738.98
Printing of books, etc.	-	-	-	-	-	5,706.25
Office equipment and supplies	-	1,213.84	-	801.23	-	313.26
Rent[a]	-	-	-	22,847.97	-	-
Books for library	-	-	-	945.53	-	-
Miscellaneous	-	271.56	-	1,412.17	-	354.09
Balance	-	1,402.48	-	9,518.31	705.62[b]	-
Total	$107,846.54	$107,846.54	$154,700.12	$154,700.12	$15,607.94	$15,607.94

[a]$3,277.00 was for rent of lecture halls.

[b]Expenses were $705.62 more than the receipts during the year, but an accumulated balance provided $1,687.21 for beginning the year 1930-31.

College used a higher percentage of its expenses for instructional salaries than the Home-Study Department did. The percentages for 1929-30 were: Home-Study, 53 per cent for instructional salaries, 47 per cent for other items; University College, 63 per cent for instructional salaries and 37 per cent for other items.

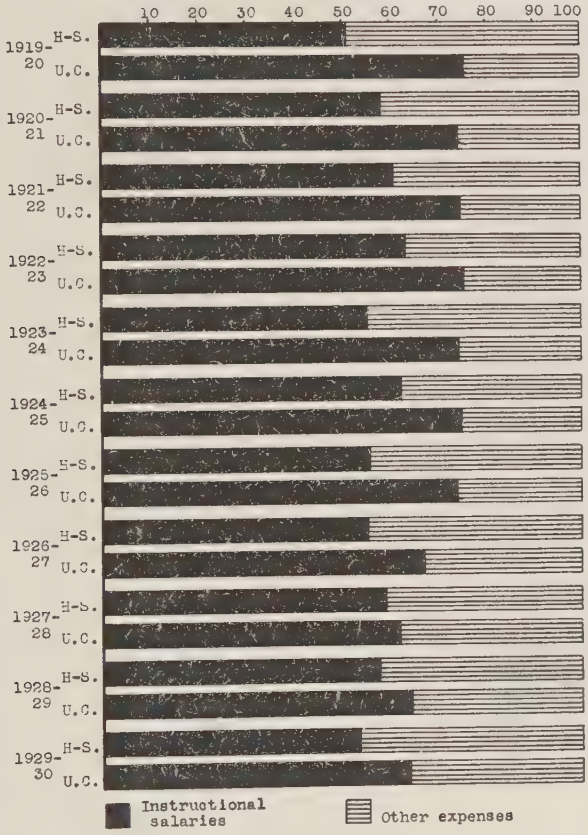

Fig. 19.- Percentage of expenditures used for instructional salaries and for other expenses each year in Home-Study and in University College. (H-S = Home-Study; U.C. = University College.)

The total cost per major registration in 1929-30 in the Home-Study Department was $24.81 and the comparable cost in University College was $22.84.[1] The instructional salary cost of one major was $13.15 in Home-Study as compared with $14.91 in University College and the other expenses per major were $11.66 in the former and $7.93 in the latter.

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[1]Based on 4,292 new registrations in Home-Study and 6118.5 major registrations in University College.

There are no available data of extension costs in other institutions, but comparisons of the preceding cost figures with those of intramural activities may have some value.

In 1929-30, the University used approximately 41 per cent of its intramural expenditures for instructional salaries[1] as compared with 53 per cent in Home-Study and 63 per cent in University College. Reeves and Russell report that 49 per cent of the expenditures in ten colleges was for instructional salaries.[2] Stevens and Eliot state that in five colleges and universities 57 per cent of the expenses was for instructional salaries and that in four normal schools 52 per cent was used for this purpose.[3] Reeves and Russell report the per student-credit-hour cost in ten colleges to be $8.66, the equivalent of $28.87 per major.[4]

The "other expenses" would have been larger if each extension organization had been required to pay for the office space used on the Quadrangles and for overhead. If this charge were made, the percentage devoted to instruction would be smaller. It seems that the University accounting procedure should indicate the cost of these services and charge them to the respective organizations. Arnett, in speaking of the expenditures with reference to special departments, says, "The departments in question should be charged rental for the use of college buildings, and depreciation to provide for the replacement of the buildings and equipment used."[5]

Service-Load Costs

The preceding discussion has shown how the extension program is financed. The purpose of this section is to present the relation between the actual cost, which is the amount paid according to the contract, and the cost as measured in terms of the time and energy consumed, of each type of service in the programs of the members of the instructional staffs of Home-Study and University College.

Definition of service-load costs.- The amount that the University pays for a service is indicated in the contract or agreement entered into by the employing official and the employee.

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[1] The President's Report, 1929-30, op. cit., pp. 183-88.

[2] Floyd W. Reeves and John Dale Russell, College Organization and Administration (Indianapolis: Board of Education, Disciples of Christ, 1929), p. 233, computed from table.

[3] Edwin B. Stevens and Edward C. Eliot, Unit Costs of Higher Education (New York: The Macmillan Co., 1925), pp. 74-75.

[4] Reeves and Russell, op. cit., p. 233.

[5] Trevor Arnett, College and University Finance (New York: General Education Board, 1922), p. 21.

For example, a contract may stipulate that a teacher is to receive $4,000 for teaching and then be assigned two courses for each of three quarters; the agreement between the teacher and the Dean of University College may provide that the former is to receive $350 for giving one course in the College; further, a teacher may agree to grade the papers of a correspondence-study student for 40 cents per paper.

But these specified amounts may exceed or be less than the costs of these services when measured in terms of the proportion of the teacher's time and energy consumed. If a teacher is paid $4,000 for teaching three quarters on the Quadrangles and devotes but one-half of his time and energy to the rendering of this service, the service cost is different from that of the actual or contract cost. A teacher may be paid $48 for grading the 120 lesson papers of three students, yet use as much time and energy in doing this work as in teaching one course on the Quadrangles. Here again, the cost of the activity as indicated in the terms of employment is quite different from the cost as measured by the time and energy consumed. To the last type of cost is applied the term, service-load cost.

The service-load cost of a particular activity may be defined as that amount of a teacher's total salary that should be allocated to this activity in proportion to the amount of the teacher's time and energy devoted to it. Stated mathematically, the proportion would be:

$$\frac{\text{Service-load cost of activity}}{\text{Total salary paid}} = \frac{\text{Load in units of time and energy of the activity}}{\text{Total load in units of time and energy}}$$

Method of determining service-load costs.- The service-load costs of the activities performed in the Winter Quarter of 1930 by the instructional staff members of the Home-Study Department and University College were computed in the following manner. The total loads,[1] in units of time and energy, as determined by using the mean value of each activity were given in Table XLVII and by using the individual estimates are given in Table LXV.[2] The percentages of the total load of each teacher for each type of activity were then found. The service-load cost of each type

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[1] In some cases it was necessary to decide whether the course taught was a new or old course as some teachers did not indicate the fact. In any case where there was a doubt, the lowest possible value was assigned.

[2] Appendix, Section F.

was determined by multiplying the total salary by the appropriate percentage. The salary figures indicating the amounts received on contracts are for the calendar year of 1929. These figures were used because the entire salaries for 1930 had not yet been paid when this study was made. As some teachers received higher salaries in 1930 than in 1929, these figures will be slightly erroneous, but to no great extent.

Relation of salaries, loads, and service-load costs.- The salaries received by the fifty-six teachers, for whom all data were available, are given in Table LXII; the load carried by each in terms of the activities performed and in units of time and energy consumed, using the mean values, was given in Table XLVII; the service-load costs of the activities performed, based on Tables XLVII and LXII are given in Table LXIII; the load carried by each of the forty-seven, using the individual estimates of the values of the activities, is presented in Table LXV;[1] and the service-load costs, based on Table LXV, are given in Table LXVII.[1] The actual or contract costs and the service-load costs of various activities, based on Tables LX, LXI, and LXVII, are given in Table LXIV.

As is shown in Table LXII, each of the fifty-six teachers worked in Home-Study or University College or both during the Winter Quarter of 1930 in addition to the services they rendered on the Quadrangles under terms of the regular contract. As Table LXIII shows, only eleven of the fifty-six teachers made lesson outlines for Home-Study courses and only three gave lectures on the public lecture program. All but eighteen taught in University College. It is significant that the total loads in units range from 298 to 1,842, and that the maximum load in units of Home-Study work is 1,437.[2] Three of the teachers definitely stated that they performed no "other activities," such as work on committees, etc.

As Table LXIII shows, the service-load costs, based on the mean values of the activities, present some contrasts to the actual costs or amounts paid for various services, which were given in Table LXII. According to the weights ascribed to the various activities by the extension teachers, the present salary received does not compensate for the amount of time and energy devoted to correspondence-study teaching and to the lecture programs, but the salary received for teaching in University College is a little higher than the service-load cost of this type of service.

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[1] Appendix, Section F.

[2] Table XLVII.

TABLE LXII

SALARIES RECEIVED BY FIFTY-SIX TEACHERS IN THE WINTER QUARTER OF 1930 FOR EACH KIND OF ACTIVITY ACCORDING TO CONTRACT AND TERMS OF AGREEMENT

Department	Teacher Number	Academic Rank	Salary Received for Winter Quarter				
			For Work on Quadrangles	From Home-Study	From University College for		Total
					Lectures	Teaching	
Philosophy	1	Prof.	$1742.67	$ -	$125.00	$ -	$1867.67
	2	Asst.P.	825.00	-	-	300.00	1125.00
Psychology	3	Asst.P.	1344.90	64.00	-	175.00	1583.90
	4	Prof.	2078.71	205.20	-	-	2283.91
	5	Asso.P.	209.55	3.20	-	150.00	1062.75
Education	6	Teacher	1437.33	58.40	-	131.25	1626.98
	7	Asso.P.	1925.00	77.60	-	366.67	2369.27
	8	Prof.	1833.33	132.80	-	316.67	2282.80
	9	Prof.	1750.00	285.20	-	225.00	2260.20
	10	Prof.	1750.00	117.60	-	-	1867.60
	11	Prof.	2395.67	-	-	450.00	2845.67
	12	Prof.	1858.00	173.60	-	450.00	2481.60
	13	Prof.	1691.80	266.80	-	400.00	2358.60
	14	Asst.P.	1422.23	332.00	-	-	1754.23
Economics and Commerce and Administration	15	Lecturer	1111.33	82.00	-	333.00	1526.33
	16	Asst.P.	1117.00	16.00	-	300.00	1433.00
	17	Asso.P.	1956.00	67.60	-	-	2023.60
Political Science	18	Asst.P.	925.00	13.60	-	300.00	1238.60
	19	Asst.P.	1191.66	-	-	375.00	1566.66
	20	Asst.P.	491.60	-	-	325.00	816.66
	21	Asst.P.	1125.00	138.00	-	150.00	1413.00
History	22	Asso.P.	1305.33	-	-	400.00	1705.33
	23	Asso.P.	1231.33	-	-	400.00	1631.33
	24	Inst.	700.00	-	-	138.00	838.00
	25	Prof.	1666.33	-	-	450.00	2116.33
	26	Asso.P.	2277.00	-	-	266.67	2543.67
	27	Asst.P.	1225.00	-	-	300.00	1525.00
Sociology	28	Prof.	2060.19	16.00	-	-	2076.19
	29	Prof.	2289.67	-	-	475.00	2764.67
Home Economics	30	Asst.P.	900.00	80.00	-	450.00	1430.00
Divinity	31	Prof.	2741.60	10.80	-	-	2752.40
	32	Prof.	1933.00	18.80	-	-	1951.80
	33	Asso.P.	1833.33	18.40	-	-	1851.73
	34	Asso.P.	1462.96	6.00	-	400.00	1868.96
Romance Languages	35	Asso.P.	1541.66	347.20	-	-	1888.86
	36	Asso.P.	1333.33	-	-	300.00	1633.33
	37	Asso.P.	1263.33	-	-	375.00	1638.33
	38	Prof.	2341.66	-	-	450.00	2791.66
German	39	Inst.	816.66	154.00	-	288.19	1258.85
	40	Asso.P.	1619.66	242.00	-	418.00	2279.66
	41	Asst.P.	933.33	59.20	-	-	992.53
English	42	Asso.P.	1166.67	211.60	-	410.00	1788.27
	43	Prof.	1822.33	904.80	-	225.00	2952.13
	44	Asst.P.	1183.33	8.00	50.00	150.00	1391.33
Physics	45	Inst.	1115.16	-	-	350.00	1465.16
	46	Inst.	1050.33	48.00	-	-	1098.33
Chemistry	47	Asst.P.	1166.67	-	25.00	-	1191.67
	48	Asso.P.	1041.33	41.60	-	-	1082.93
Geology	49	Asso.P.	1487.33	33.60	-	-	1520.93
	50	Prof.	2263.88	9.20	-	-	2273.08
Botany	51	Asst.P.	1263.67	5.60	-	-	1269.27
	52	Prof.	2058.00	-	-	350.00	2408.00
	53	Asso.P.	1892.33	4.00	-	-	1896.33
	54	Asso.P.	1632.67	-	-	350.00	1982.67
Zoology	55	Prof.	1937.67	197.20	-	200.00	2334.87
Hyg. and Bact.	56	Inst.	1533.33	-	-	300.00	1833.33
Total			$84,971.91	$4,449.60	$200.00	$12,193.45	$101,814.96

The aggregate salary, $84,971.91 in Table LXII, received by these fifty-six teachers for work on the Quadrangles during the Winter Quarter of 1930, one-third of that received for the year 1929 as previously pointed out, is in contrast with $71,124.99, the service-load cost of Quadrangles activities, the sum of columns 1 and 2 in Table LXIII. It will be noted that this $71,124.99 is almost equally divided between "teaching classes" and "other activities," $34,168.23 for the former and $36,956.76 for the latter.

Stated differently, the contract salary received by these fifty-six teachers more than pays for the time and energy used on the Quadrangles; furthermore, only about half of this salary is in recompense for their teaching services, the other half being paid for the performance of their other activities.

TABLE LXIII

SERVICE-LOAD COSTS OF THE ACTIVITIES PERFORMED BY FIFTY-SIX TEACHERS IN THE WINTER QUARTER OF 1930 BASED ON THE MEAN VALUES OF THE ACTIVITIES

Teacher Number*	Service-Load Costs of Activities in Winter Quarter					
	On the Quadrangles		In Home-Study		In University College	
	Teaching Classes	Other Activities	Making Outlines	Grading Papers	Giving Lectures	Teaching
1	$ 536.21	$1045.33	$ -	$ -	$286.13	$ -
2	496.07	342.52	-	-	-	286.41
3	407.54	635.46	194.03	232.83	-	114.04
4	869.94	410.42	-	1003.55	-	-
5	400.34	536.16	-	11.90	-	114.35
6	820.95	.00	298.53	328.38	-	179.12
7	655.81	910.27	-	427.42	-	375.77
8	548.33	807.20	-	612.93	-	314.34
9	369.77	660.20	176.07	941.83	-	112.33
10	522.93	796.72	-	547.95	-	-
11	924.27	1480.03	-	-	-	441.37
12	763.59	683.18	-	743.24	-	291.59
13	418.65	303.79	225.01	1124.58	-	286.57
14	412.88	253.41	-	1087.94	-	-
15	367.16	382.89	209.80	322.58	-	243.90
16	437.54	405.23	234.92	70.47	-	284.84
17	603.84	1056.72	-	363.04	-	-
18	351.89	634.90	-	44.59	-	207.22
19	420.18	855.40	-	-	-	291.08
20	297.75	390.78	-	-	-	128.13
21	357.21	660.15	-	319.90	-	75.74
22	679.74	736.36	-	-	-	289.23
23	732.63	475.53	-	-	-	423.17
24	357.83	355.31	-	-	-	124.86
25	726.96	969.49	-	-	-	419.88
26	1252.00	967.10	-	-	-	324.57
27	582.86	586.51	-	-	-	355.63
28	986.61	1019.20	-	70.38	-	-
29	758.90	1567.57	-	-	-	438.20
30	423.57	330.47	-	302.59	-	373.37
31	905.54	1765.39	-	81.47	-	-
32	742.46	1092.62	-	116.72	-	-
33	611.63	869.20	274.80	96.10	-	-
34	683.10	759.73	-	34.58	-	391.55
35	370.78	137.70	-	1380.38	-	-
36	522.67	821.33	-	-	-	289.33
37	689.74	566.70	-	-	-	381.89
38	1460.04	440.80	-	-	-	890.82
39	494.73	.00	-	545.08	-	219.04
40	427.82	446.15	-	1109.27	-	296.42
41	470.50	143.39	179.24	199.40	-	-
42	348.30	472.20	-	741.02	-	226.75
43	285.18	281.93	128.42	2174.83	-	81.77
44	523.28	539.97	-	39.79	125.92	162.37
45	522.04	719.10	-	-	-	224.02
46	439.33	433.07	-	225.93	-	-
47	536.38	607.22	-	-	48.07	-
48	547.31	388.66	-	146.96	-	-
49	427.99	761.69	203.80	127.45	-	-
50	1078.80	556.45	542.81	95.02	-	-
51	570.53	673.10	-	25.64	-	-
52	810.29	1192.68	-	-	-	405.03
53	1132.87	725.35	-	38.11	-	-
54	667.17	872.18	-	-	-	443.32
55	668.35	674.13	-	856.41	-	135.98
56	747.45	757.72	-	-	-	326.16
Total	$34,168.23	$36,956.76	$2,667.43	$16,590.26	$460.12	$10,972.16

*The numbers correspond to those in Table LXII.

TABLE LXIV

ACTUAL OR CONTRACT COSTS AND SERVICE-LOAD COSTS OF VARIOUS ACTIVITIES
(From Tables LXII, LXIII, and LXVII)

Activity	Contract Cost[a]	Service-Load Cost Based on	
		Mean Values of the Activities[a]	Individual Estimates of the Value of Each Activity[b]
Class teaching on the Quadrangles and "other activities"	(($84,971.91	$34,168.23 36,956.76	$31,954.15[c] 32,468.09
Grading one correspondence-study paper	.40	1.49	1.14
Preparing one correspondence-study lesson outline	300.00[d]	242.49	287.79
University College teaching:			
One class	362.14	325.87	352.42
One junior-college class	332.91	296.38	339.42
One senior-college class	369.04	354.51	343.00
One graduate class	405.83	300.35	385.15
One lecture on Public Lecture Program	25.00	57.51	28.46

[a]Data for fifty-six teachers.

[b]Data for forty-seven teachers.

[c]The amounts in row one are for teaching on the Quadrangles; the amounts in row two are for "other activities" on the Quadrangles, not including Home-Study teaching.

[d]Average amount received.

The total amount received for Home-Study work is $4,449.60, Table LXII, in contrast with $19,257.69, Table LXIII, the service-load cost of these activities, making outlines and grading papers. The amount actually received for preparing the outlines is determined by the number of registrations for each course, the average number during the ten years being 153 per course. The teachers receive $2.00 per major registration as "royalty," an approximate average, therefore, of $306 for each outline. As the number of registrations per course varies from one to over 1,000, some are underpaid while others are well compensated for this service. The average service-load cost of preparing an outline is $242.49, approximately $60 per outline less than is received on the average. Teachers receive forty cents for grading each correspondence-study lesson while the average service-load cost of grading one lesson is $1.49, almost four times the amount received.

The aggregate salary paid for teaching in University College during the Winter Quarter of 1930 is $12,193.45, Table LXII. The service-load cost of this teaching is $10,972.16, Table LXIII, which is $1,221.29 less than the actual cost. The average amount paid for teaching one University College class is $362.14 in contrast with the service-load cost of $325.87, a difference of $36.27 per class. The average amount paid for a junior-college class is $332.91, a senior-college class $369.04, and a graduate class $405.83. The comparable service-load costs of teaching the various classes in University College are $296.38, $354.51, and $300.35.

The service-load cost per lecture, $57.51, is approximately two and one-third times the amount actually paid, $25.

The service-load costs, based on the individual estimates of the value of each activity, as shown in Table LXVII[1] and the last column in Table LXIV, vary to some extent from the service-load costs based on the mean values of the activities. On the individual basis of calculation, the cost of grading one correspondence-study paper becomes $1.14 and the cost of preparing one correspondence-study outline is increased to $287.79, approximately the average amount now received for this service. The other differences are in the cost of teaching in University College and giving lectures on the public lecture program.

Whether the service-load costs are computed from the mean values of the activities or from the individual estimates, certain points stand out: first, the amount received on contract for services on the Quadrangles is divided approximately equally between teaching and other activities; second, the amount now received for grading correspondence-study papers does not pay for the time and energy devoted to the activity; third, the Home-Study teachers are fairly well paid, on the average, for preparing lesson outlines; fourth, the amount now received for teaching in University College approximately pays for the time and energy expended on this service; and fifth, the lecturers are underpaid for their services.

Proposed Fees

The cost per major to extension students is $8.33 less than to Quadrangles students. For the additional $8.33 the Quadrangles student has access to the libraries, laboratories, gymnasiums, clinics, and the many lectures that are offered from time to time. The correspondence- and class-study students are permitted to enjoy some of these privileges, provided they live close enough to the Quadrangles. However, it seems that the students of both extension groups receive full value for the fees paid.

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[1] Appendix, Section F.

It should be recognized that the correspondence-study students receive proportionately more of the teachers' time than Quadrangles or class-study students receive. Further, the extension students have the opportunity of studying with teachers who could not be secured for the fees paid if these teachers were not already attached to the University.

In the second section of this chapter, it was pointed out that the real or service-load costs for some services are higher than the actual costs. This is particularly true of the service-load cost of grading correspondence-study papers. There is a possibility that if arrangements were made whereby the number of correspondence-study students assigned to each teacher would be sufficient to require a definite, regular amount of time, the service-load cost would be reduced. It will be recalled, however, that the coefficient of correlation between the number of papers graded and the estimates made was minus, quite small, and statistically insignificant.

Whether students who are gainfully employed should pay the real cost of their education is a mooted question. If the question is answered in the affirmative, the fees required of Home-Study students would have to be about three times the amount now charged. The following tabulation shows the method of determining the amounts.

	Amount now Charged		Amount now Paid to Teacher		Amount for other Expenses		Amount to Be Paid to Teacher		Amount to Be Charged Student
1 major	$25	—	$16	=	$ 9	+	$48	=	$ 57
2 majors	47	—	32	=	15	+	96	=	111
3 majors	65	—	48	=	17	+	144	=	161

In round numbers, these might be set at $55 for one major and $100 for two majors and $150 for three majors for which registration is made at one time. However, as the University charges undergraduate students on the Quadrangles[1] the same per major regardless of the number taken, there seems little, if any, reason for Home-Study offering reduced rates for two or three majors.

If public lecture patrons are to pay the real cost of the service they receive, the price of lecture tickets will have to be more than doubled.

The raising of fees, no doubt, would reduce the enrolment in Home-Study and the attendance at the public lectures. The

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[1]Announcements, Arts, Literature and Science, 1931-32, Bulletin, XXXI, No. 12 (Chicago: University of Chicago Press, 1931), p. 6.

final solution of the fee problem is dependent on the policies of the University in regard to its function in the field of adult education off the Quadrangles.

CHAPTER X

CONCLUSIONS

> "The field for experiment in educational work is as vast as any that may present itself in other departments of activity. If only those who experiment will be quick to discard that which shows itself to be wrong, the cause of education has nothing to fear from experiment."[1]

With the point of view expressed in the foregoing quotation, the University of Chicago was created and established. In the mind of President Harper it was to be a university of "another type . . . . differing essentially from the colleges of historic character."[2] In fact, the original plan was confessedly radical, so much so that one educator described it as "unique and revolutionary."[3] Dr. Slosson said that the plans for the new University "fell like bombs into the educational life of the time."[4]

The plan provided for three features new to American universities--University Extension, University Press, and University Affiliations. The inclusion of University Extension as one of the divisions of the University constituted the basis for a far-reaching experiment in American education and was truly an example of pioneering in the field of higher education in America. It seems fitting, therefore, after thirty-seven years to examine the results of this experiment, at least in so far as it affects the University itself, to determine what features should be discarded, altered, or continued.

Management and Control

Originally the extension program was managed by one division of the University, a centralized type of control with but one officer directly responsible to the president. As time went on the extension activities came to be administered by separate, uncoordinated units with different officers. Various factors have

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[1] Quoted from President Harper's third quarterly report by Thomas Wakefield Goodspeed, A History of the University of Chicago (The University of Chicago Press, 1916), pp. 130-31.

[2] Ibid., p. 130.

[3] Ibid., p. 147.

[4] Thomas Wakefield Goodspeed, William Rainey Harper, op. cit., p. 111.

operated to bring about this change. For economic reasons certain aspects of the extension program were discontinued at an early date. Because of local conditions it seemed wise to separate the extension-class work from the other activities and establish a downtown branch of the University. Later The American Institute of Sacred Literature, performing a function somewhat foreign to those included in the original plans, was brought into the University family and established as a separate organization. With the advent of the radio into the scheme of things, an additional unit was developed. Four organizations were in charge of the extension activities provided by the University when this study was made: the Home-Study Department, University College, The American Institute of Sacred Literature, and the Radio Department. Each organization is controlled directly or indirectly by certain Ruling Bodies which further complicates the administration of the extension program.

Sound policies of educational administration dictate that a return to centralized control and management would be desirable. The principle of cabinet control, which assigns to each member of the cabinet one type of activity and makes him directly responsible to the chief administrative officer, provides a type of organization that is economical of the time and energy of all concerned. This proposed control does not imply that advantage is not to be taken of any suggestions that various staff members may make from time to time. On the contrary, all the wisdom of the Faculties should be applied to the organization and administration of this off-Quadrangles program to the same extent that use is made of the members of the Faculties in furthering any other University activity.

The continuation of the off-Quadrangles activities indicates that the University has from the beginning looked with some favor upon the extension program. Additional evidence of the attitude of the University toward the program is shown in three ways: first, office space, certain clerical assistance, and general administrative services have been provided for each extension organization without charge; second, the University has provided small amounts of money for carrying on some aspects of the program; and third, many members of the Faculties and the general administrative officers have given their personal support to the program.

President Harper believed that one function of a university is to disseminate knowledge and that a university should devise ways and means to enable students to study wherever they may be. The extension program, originating as it did, early admitted to its services all who might profit thereby. In itself, this

policy was unique in American institutions of higher learning. The requirements for admission to some of the extension activities are still on a non-academic basis while admission to others included in the program has been placed on the usual scholastic plane.

As in the beginning, the University continues to take the experimental attitude. The introduction of the New Plan assumes that it does not matter where or how one becomes educated and that one's ability to attack new and more complicated problems is not indicated by the possession of so many credits. The measure of whether or not one is educated is to be a mastery of fundamental principles, an intelligent acquaintance with the contributions of civilizations, and a power to use such understandings and knowledge in making desired adjustments to the institutions and forces of society. The adoption of the New Plan implies that further experimentation should be carried on to determine the adequacy of the present requirements for admission to the activities provided in the extension program. Should the admission requirements be on a credential or examination basis? If the former, should the provisions now in force continue to be used or should new criteria be set up as guides for determining the credentials that should be used? What should the criteria be? If examinations, what should be the content, type, and method of administration? To answer such questions, experimentation is obviously needed.

Extension Activities

As has been pointed out, the founders of the University did not desire to establish just another institution of higher learning. The spirit that motivated them was that of service, but not merely the type of service that characterized the then existing institutions. This attitude was responsible for the many kinds of educational activities that were included in the original plan. At present, two types of educational opportunities are provided in the extension program, the formal activities leading ultimately to academic degrees and those of an informal character offered to those who desire further training of a vocational or cultural nature.

The formal type provides opportunities to study by correspondence and in extension classes under the guidance and close supervision of the instructors. The opportunity to study by correspondence is offered by the Home-Study Department, and that of studying in extension classes by University College. Granting academic credit for work done outside the walls of the institution was an innovation in American educational procedure and permitting students to receive credit without coming into personal contact with the instructor was looked upon as educational heresy. The

correspondence-study work was originally provided for students on all academic levels, but at present few courses are provided for those with less than a high-school education.

The magnitude of the formal offerings of the extension program is indicated by three factors, the number of departments participating, the number of courses offered, and the number of new courses provided from year to year.

During the ten years, 1919-20 to 1928-29, covered by this study, thirty departments provided courses through the Home-Study Department and twenty-seven offered courses in University College. In other words, over three-fourths of all the academic departments of the University participated in offering formal work by extension.

The extent of the formal offerings is further shown by the number of courses made available. During the ten-year period, the Home-Study Department provided each year from 374 to 422 college courses in addition to 27 to 38 sub-college courses; University College offered each year from 126 to 258 college courses.

Not only were over one-half of the courses offered on the Quadrangles made available each year to non-resident students, but many new courses also were provided each year. The Home-Study Department added an average of over 22 courses and University College an average of over 67 courses each year following 1919-20.

The foregoing summary might imply that a well-rounded program was made available to off-Quadrangles students. On the contrary, the small number of courses offered by some departments made it impossible for a non-resident student to secure the breadth of training that a general education should include. The offerings were varied enough, however, to make it possible for students to acquire a part of their training without coming to the Quadrangles.

The experience of the past thirty-seven years has shown that some courses as now conceived and offered cannot be carried on satisfactorily in extension. This is especially true of the courses commonly taught in connection with laboratories. Present practice in some institutions indicates a trend away from so much laboratory work on the junior-college level which should stimulate an experiment to determine whether or not some courses formerly and now given in laboratories may be offered satisfactorily to extension students. The method of presentation will no doubt differ from that commonly employed, but experimenting will determine the desirability of such a change. It is doubtful if the University is any longer justified in offering the same program in the same manner as heretofore.

Some attempt has been made toward determining new courses

that might be offered. University College strives to provide courses that will meet the demands of certain vocational groups to the end that these members of society will be better able to adjust themselves to new conditions. Further efforts should be made by both the Home-Study Department and University College in experimenting with new types of courses and new methods of presentation.

Stated differently, students who have found it inconvenient or impossible to come to the Quadrangles to study have been able to make contacts with over three-fourths of the academic departments of the University through a large number of courses. The opportunities provided and the methods of presentation used have not been altered during the last few years to the extent that might have been possible.

The informal type of opportunities provided by the extension program includes public lectures, a study of religious and Biblical themes, and radio programs.

The public lecture program, sponsored by University College, has offered an opportunity for the lecture public to acquire an insight into a number of fields of thought. In four and one-third academic years, 413 lectures were given on thirty-eight different themes by lecturers secured from thirty-one different departments. The program may be thought of as semi-popular in nature, yet it is "systematic in form and scientific in spirit."[1]

That the public lectures have been well received is shown by the number of persons taking advantage of this opportunity, the average attendance being 225 per lecture. The lectures on three themes, finance, health, and natural science, were attended by smaller numbers than those on other themes. Whether the attendance at these lectures was comparatively low because of the themes or subjects or because of the method of presentation is not known. A critical analysis of both subjects and methods of presentation is necessary if these fields of thought are to be presented to increasingly larger audiences.

The work of a religious and Biblical nature, offered by The American Institute of Sacred Literature, is unique, as this type of service is offered by no other institution in the entire country. An opportunity is here provided to study and to analyze dispassionately questions that are so often answered on an emotional level. The financial support given by the University to aid in carrying on this phase of the program and the number of departments that have provided instructors who participated in the production of the materials used indicate that the University has

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[1] Official Bulletin No. 6, op. cit., p. 7.

looked with some favor upon this activity. The large number who enrol with The Institute and the many letters received thanking the Secretary for the assistance rendered show the popularity of this type of service.

The program provided by the Radio Department is the most recent addition to the extension activities. Here again the University assumed a pioneer attitude. The result has been most gratifying in every particular except the financial one and even this aspect of the undertaking has not been without its bright side. A few contributions from private donors and support given by broadcasting companies have assisted in making the program possible. The success of this new venture is due to at least two factors, the type of programs broadcasted and the method of presentation. The course work has been favorably accepted, especially when one considers that the movement is yet in the experimental stage, and the round tables and discussions on current topics have proven particularly attractive. The conversational method that is used has been so satisfactory that many stations have adopted it in broadcasting programs of other than an educational type. Experimentation is being carried on to determine the most desirable types of programs and the most efficient methods of presentation.

Student Personnel

The number of student registrations during the past years amply provided this requisite of the extension plan. The average number of yearly registrations for correspondence- and class-study work, during the last ten years, was equivalent to a college or university with 1,312 students enrolled for full-time schedules.

The student body attending this "Extension University" is composed of men and women in about the ratio of 35 to 65. The average age of the students is approximately thirty-one years. Although this body of students represents every state in the Union, the District of Columbia, six territories and outlying possessions, and twenty-one foreign countries, all but a very small per cent are citizens of the United States. Practically every one of these students is engaged in some type of employment as well as studying--students who are learning while earning.

In addition to those who were pursuing formal studies, thousands availed themselves of the opportunities offered by the lecture program, religious and Biblical materials, and the radio program.

The ability of the students to profit from their contacts with the extension program is revealed by their previous training and the quality of work they did both in extension and on the Quadrangles.

The previous training of the extension students indicates that they are able to do work of at least average quality. Over 90 per cent of them were graduates of high school, and judging from samplings of both the correspondence- and class-study student groups, a majority had attended institutions of higher learning before enrolling for extension work, the average number of years attended being three. One-third of the correspondence-study and two-fifths of the class-study students had received degrees prior to enrolment in extension courses.

The quality of work done by these students is indicated by the grades they received both in extension and on the Quadrangles. The average grade received by Home-Study students is almost one-half letter grade higher when they study by correspondence than when they study on the Quadrangles; the average grade received by class-study students is fully as high when they study in University College as when they study on the Quadrangles. When these extension students come to the Quadrangles and study, the difference between the mean quality of their undergraduate work and of all undergraduate work done on the Quadrangles is approximately one-fourth of a letter grade in favor of extension students. The quality of graduate work done by extension students when they work on the Quadrangles is a little below the mean quality of all graduate work done on the Quadrangles. The quality of work done indicates that they are fully as capable as the average resident students at least in so far as the undergraduate level is concerned.

The success of the extension program is not truly shown in the preceding paragraph, however. Although the average quality of undergraduate work done in extension is higher than that of work of a similar level done on the Quadrangles, a large number of extension students fail to complete the courses for which they register. This is more pronounced in the Home-Study Department than in University College. There are a number of factors that contribute to the high quality of extension work and to the number that fail to complete their registrations.

Extension students, especially those on the undergraduate level, are more mature than corresponding Quadrangles students. In addition to their greater maturity, extension students, as a rule, are engaged in some type of employment that provides an immediate motive for studying. There is little evidence to explain the fact that extension students do no better in graduate work in extension and that they do not do such high quality of work in residence on the graduate level as Quadrangles graduate students do. Two possible suggestions present themselves. First, the native ability of extension students may not be so high as

that of students who come to the Quadrangles to study on the graduate level. Intelligence tests have not been administered heretofore to extension graduate students as they have been to students working on this level on the Quadrangles, but the present policy adopted by some academic departments of requiring all graduate students to take the tests will help determine the validity of this tentative assumption. Second, when the extension students do graduate work and the amount of continuous time for study may operate against a higher quality of work being done by them on this level. A great many of these students come to the Quadrangles for graduate study during the Summer Quarter only. There is a possibility that they are handicapped because their study does not extend over a long enough period of time to permit them to do the type of work expected on the graduate level. They may not be able to adjust themselves in this short period. A further detailed analysis of the quality of work done by extension students when they come to the Quadrangles for graduate study is desirable. The University requires three quarters of continuous study for the Doctor of Philosophy degree. A careful comparison of the grades received by students who remain longer periods of time with those received by students who study for shorter periods would confirm or deny the validity of the present practice and point the way for making any changes that would be desirable.

The quality of work done by extension students in University College is only a little better than that done by students doing comparable work on the Quadrangles. Although the factors of maturity and immediacy of motivation may operate in favor of this extension group, the time for study may act in the opposite direction. There are two aspects of the time factor, the total amount of time available for study and the lack of an opportunity for continuous study. From the standpoint of the total amount of time available, these extension students should not be handicapped to any great extent, if at all. That these students do not have an opportunity to study continuously as do Quadrangles students is obvious. Their study times must be sandwiched in between their work periods. Further study is necessary to show the specific effects of these factors. If the program as now set up and administered does not result in each student making the maximum development of which he is capable, modifications should be made.

At least two factors contributing to the higher grades received by students who study by the correspondence-study method are the time available and the method of instruction. These students have all the time needed for the completion of a course, a minimum of one year. Further, the instruction is by the individual method, which permits students to receive all the assistance desired.

There are two possible causes of so many correspondence-study students discontinuing their work. In spite of the efforts made by the Home-Study Department to determine whether a prospective student is qualified to pursue a desired course, many no doubt register for courses beyond their abilities. The Department and instructors consume much time and energy in persuading students to complete their work. If it is desirable that more students carry to completion the courses for which they enrol, additional or new means should be devised to determine more accurately the ability of students to do the desired work and to stimulate the students to complete an adopted program of study. The present scheme is apparently educating "quitters." On the other hand, if it is desirable to use the correspondence-study method as a device for selecting students who may continue on higher levels, the present plan may fulfill the purpose.

A second contributing factor to the great number who drop their work is that many enrol for the specific purpose of securing help on their immediate problems rather than for credit. When such desired assistance has been received, they discontinue the course.

The number of registrations by extension students has increased enormously since the founding of the University. In many respects the experiment of including off-Quadrangles work in the original plan has proven the wisdom of the first president. The number of registrations for class-study work in University College has increased rather steadily since the adoption of this aspect of the extension program. The Home-Study Department enjoyed a rapid growth until 1925-26. Since this date the number of registrations has declined, the number in 1928-29 being only 78% of the number in 1925-26. This decline has occurred in spite of the new courses that were offered each year and the many revisions that were made in course outlines for the purpose of keeping them up to date.

Certain factors are apparent that may have operated to cause the decrease in registrations. Practically all state universities and many other institutions of higher learning have followed the lead of the University in offering correspondence instruction. In most of these institutions the fees are less than those charged by the Home-Study Department. In other words, students may secure the work desired at a lower cost in local institutions than that charged by the University. In the beginning, this type of service was unique and attracted students. But while other institutions adopted the plan, the University of Chicago continued to offer a program very similar to that with which it began and by the same methods. It seems that the time has now arrived when the University can no longer continue the correspond-

ence-study work on a purely service basis. A continuance of the Home-Study method may be justified on other grounds, however. The University has the opportunity to carry on experimentation of a high order in this field. Such problems as the following may be suggested: (1) The value of the correspondence-study method in the adult education movement; (2) The advantage of the correspondence-study method as an opportunity to enable students working under the New Plan to pursue certain of the "tool subjects"; (3) The devising of better methods of presentation than those now in operation; (4) The possibility of the University making available to its alumni a type of continuation education not now provided by the Home-Study offerings. Here is an opportunity for the University to experiment for the purpose of determining more desirable subject matter and better techniques for use by the correspondence-study method.

Instructional Staff

The ability of the members of the extension instructional staff to carry on the activities expected of them is indicated by a number of factors. First, a majority are members of the Faculties of the University, while the remainder are engaged in similar work in other institutions of higher learning or are members of professional groups working in allied fields. Second, using the criterion, degrees held, as the basis for a conclusion, they are as well trained as are the members of the resident Faculties. Third, the academic ranks of those members of the extension staff secured from the University Faculties are equal to the academic levels of the resident group. Fourth, although a majority of the teachers carry the extension work in addition to their regular loads, they make as many scholarly contributions as Quadrangles teachers, who do no extension work, contribute.

However, the extension work is a drain on the energies of some of those who participate in the program. The great variation between the loads carried by the members of the extension staff indicates that some might produce more books, articles, and reviews if it were not for this extra burden.

Whether the present practice should be retained or some different method of securing staff members should be adopted in the future to carry on the extension program is a question for further study. President Harper believed that the extension work should be done by a separate staff. Directors of extension work in some of the other institutions of higher learning in the country hold the same view. One objection to this plan is that such instructors may not be connected closely enough with current practices in the institution to hold the extension work on the same plane as that on the Quadrangles.

The extension work should be scheduled as a part of the regular service load of the Quadrangles staff members. This would result in the extension teachers being regular members of the University Faculties who would be in touch with the spirit and purposes of the institution. A beginning has already been made in this direction. During the coming year, a majority of the classes in University College will be carried as parts of the regular loads of the Quadrangles staff members. This plan should be carried out in full as rapidly as possible for two reasons: first, it will tend ultimately to discontinue the practice of using outside staff members; and second, it has certain financial advantages.

Cost of the Program

Except for small sums contributed to The American Institute of Sacred Literature and to the Radio Department and except for the provision of certain services and quarters for each extension organization by the University, the extension program is maintained on a self-supporting basis. Indirectly, the program costs the University a considerable amount in the drain it makes on the energy of the staff members as the service-load cost of some extension activities is much greater than the actual or contract cost, but this condition will be relieved to some extent by scheduling the extension work as a part of the regular load.

Maintaining the program on a self-supporting basis has proven to be disadvantageous in a number of particulars. As state universities have inaugurated extension work of a correspondence type, usually at lower cost to students than that charged by the University of Chicago, the latter has been unable to adjust the fees to compensate for the subsidy granted by the states to their institutions. The lack of adequate funds, except for bare maintenance, has prevented the extension organizations from carrying on a type of experimentation that should characterize the program. Before additional funds would be justified, carefully developed plans should be outlined to indicate the possibilities of education by extension. Administrators of some of the extension organizations of the University have shown that they are thinking in this direction and the indications are that funds will be forthcoming for the purpose of determining some of the activities that should be discarded and those that should be added, and of indicating procedures now used that should be abandoned and possible steps that should be taken in the future.

Summary

The analysis of the extension program has shown that the University, a pioneer in the movement, has provided an extensive schedule of activities to be offered to off-Quadrangles students;

that the quality of work done on certain levels is fully equal to that accomplished by Quadrangles students; that the extension staff is qualified to carry on the program as now planned; that the University has given some financial support to the movement as well as its moral support; and that the position of leadership in extension education once enjoyed by the University can no longer be assigned to it.

Here is a great university well equipped with libraries, laboratories, and clinics that are all but unique. Its staff includes the leaders in their respective fields. Does such an institution have any responsibilities to those who cannot come to its classrooms? Does it have any obligation to point the way to a more desirable type of adult education? Has it any responsibility in devising new methods and techniques of providing extension education?

If an extension program is to be continued by the University, the same attitude assumed by President Harper in the beginning toward off-Quadrangles activities must be reaffirmed and continued--an open mind, suspended judgment, and experimentation of a high order.

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APPENDIX

There are six sections in the Appendix, one section devoted to each of the following: A. Questionnaire sent to the Home-Study teachers; B. Questionnaire sent to the University College teachers; C. Number of estimates made on the mean value of each type of activity performed and the mean value of each type of activity as secured from the questionnaires; D. University College Supplementary Information Blank; E. Determination of the point values of the graduate letter grades; F. Supplementary tables; G. Form of card used in collecting data on scholarly productivity; and H. Some suggested problems.

A. Questionnaire Sent to Home-Study Teachers

The following Questionnaire, with the cover letter by the Vice-President and Dean of the Faculties, was sent to all members of the Faculties who offered instruction in the Home-Study Department during 1929-30.

THE UNIVERSITY OF CHICAGO
Office of the President

April 1, 1930

To Members of the Faculty who offer
Instruction in the Home-Study Department:

In connection with a study now under way of instructional facilities in the University of Chicago, we should like to obtain at an early date the information called for upon the enclosed forms. Please give the questionnaire your careful attention. It should be returned to this office no later than April 10.

Cordially yours,

Frederic Woodward

Part I.- Opinion concerning quality of work.- We should like to have your frank opinion concerning the quality of the work which is done by correspondence. You may use the questions below as a means of expressing your opinion, or you may express your opinion in a brief paragraph.

1. As a group, do the students, doing work by correspondence, do as high quality of work as students on the Quadrangles do? . . . . . Yes_____ No _____
2. Do you feel that correspondence-study students are working below their capacity due to the fact that they are, for the most part, engaged in regular employment in addition to their correspondence work? Yes_____ No _____
3. Please underline the term at the right that indicates the relative quality of work done by the BEST correspondence-study students in comparison with that done by the BEST students on the Quadrangles. Better Same

That is, do the BEST correspondence-study students do better, about the same, or poorer work than that which the BEST students on the Quadrangles do? . . . Poorer

4. Please underline the term at the right that indicates the relative quality of work done by the POOREST correspondence-study students in comparison with that done by the POOREST students on the Quadrangles. That is, do the POOREST correspondence-study students do better, about the same, or poorer work than that which the POOREST students on the Quadrangles do? . . . . . Better / Same / Poorer

5. Should the admission requirements to Home-Study work be as strict as they are for residence work? . . . . Yes_____ No _____

6. Does the work in your department, which is offered by correspondence, have any additional values for correspondence-study students, who are in the majority of cases engaged in regular employment, which the same courses studied on the Quadrangles do not have? . . . . . Yes_____ No _____

If "Yes," what are they? _____

_____

7. Do courses offered on the Quadrangles have values for students that the same courses offered by correspondence do not have? . . . . . Yes_____ No _____

If "Yes," what are they? _____

_____

8. Do you think that it would be advisable to offer some graduate work by correspondence, in the department in which you are teaching, to count toward a higher degree? . . . . . Yes_____ No _____

If "Yes," what courses and under what circumstances?

_____

Department _____ Signed _____

Part II. Estimated values, in UNITS OF TIME AND ENERGY, of various types of work.- In order to secure a measure of the university load of those faculty members who are teaching courses by correspondence, we should like to have your assistance. On the following pages are listed various types of work which require varying amounts of TIME AND ENERGY.

Assume that the value of the time and energy required to organize and teach a NEW course on the Quadrangles, one which has not been taught by you or by a colleague, on the junior-college level is 100. Please indicate the value of each type of work which you are now doing or which you have recently done. If there is some type of work which you are not performing now or have not performed recently, do not make any estimate of its value. That is, if you have never taught three sections of the same course concurrently, omit No. 13. If you have never taught

a NEW course, one which has never been taught before by you or by a colleague, on the senior college level, omit the blanks under Senior College in Numbers 3 and 9.

For example: assume that organizing and teaching a NEW course on the Quadrangles on the junior-college level is worth 100 units of time and energy. You might consider organizing and teaching an OLD course on the Quadrangles on the senior college level worth 90 units; teaching the same course downtown but not the same quarter, 95 or 80. Organizing a NEW course and teaching it downtown on the graduate level might be worth 130. The committee work which you do in addition to a full load (2 majors or the equivalent) might be worth 10 or 30 units. The figures given here are merely illustrative and may be much higher or lower than the figures which you give.

In making the estimates in regard to the different types of teaching, consider the time and energy required in organizing new courses and re-organizing old courses as well as the time and energy required in teaching them. Time and energy spent in conference with students will be included as a part of the time and energy spent in teaching those classes. NOTE that work in connection with dissertations is considered separately.

Estimated Values, in UNITS OF TIME AND ENERGY, of Various Types of Work

Class Teaching

	Junior-Col.	Senior-Col.	Graduate
1. Teaching an OLD course on the Quadrangles			
2. Teaching a course on the Quadrangles which is NEW to you but which has been taught by a colleague and for which outlines or other materials are at your disposal			
3. Teaching a NEW course on the Quadrangles, which has not been taught by you or by a colleague	100		
4. Teaching another section of the same OLD course (No. 1) during the same quarter on the Quadrangles			
5. Teaching another section of the same NEW course (to you) (No. 2) during the same quarter on the Quadrangles			
6. Teaching another section of the same NEW course (No. 3) during the same quarter on the Quadrangles			
7. Teaching an OLD course downtown (i.e., at University College)			
8. Teaching a course, which is new to you, downtown, but which has been taught by a colleague (No. 2)			
9. Teaching a NEW course downtown, which has not been taught by you or by a colleague			
10. Teaching another section of the same OLD course (No. 1) during the same quarter downtown			

	Junior Col.	Senior Col.	Graduate
11. Teaching another section of the same NEW course (No. 2, new to you) during the same quarter downtown			
12. Teaching another section of the same NEW course (No. 3) during the same quarter downtown			
13. Teaching three sections of the same OLD course concurrently, two on the Quadrangles, one downtown--the value of each			

Work Other than Class Teaching

14. Administrative work for which release from one major has been granted _____
15. Research work for which release from one major has been granted _____
16. Research work, other than that in connection with a course which you are now teaching, without release from one major _____
17. Committee work in addition to a full load (2 majors or the equivalent) during one quarter _____
18. The writing of personal recommendations as well as those submitted for filing in the placement office DURING ONE QUARTER _____
19. Work in connection with dissertations:
    (a) One Master's _____
    (b) One Ph. D. _____
20. Consultative work or reading manuscripts for the University Press during one quarter _____
21. All of your work during one quarter on some magazine or journal sponsored by the University for which no additional salary is received _____
22. Preparing and giving one "downtown public lecture" _____
23. Outlining the lessons for one correspondence-study course (Major) _____
24. Grading the papers for one student in a correspondence-study course (Major) _____
25. Traveling to and from the University College while teaching one major _____
26. Please add any types of work in which you are engaged, as University work, for which additional salary is not received and evaluate each.
26. _____ _____
27. _____ _____

Please place a cross (x) IN FRONT of each type of work in which you are now engaged or were engaged during your last quarter in residence.

Department _____ Signed _____

B. Questionnaire Sent to Teachers in University College

The following Questionnaire, with the cover letter by Dean Huth, was sent to all the members of the Faculties who were teaching in University College in 1929-30 and to those who had taught in University College at any time during the four years previous, that is, the instructors during the five-year period, 1925-26 to 1929-30, inclusive.

THE UNIVERSITY OF CHICAGO
University College

Office of the Dean

TO INSTRUCTORS IN UNIVERSITY COLLEGE:

The enclosed questionnaire forms part of the current University Survey and is being sent to all those who have given instruction in University College or participated in the Public Lecture program within the past five years. The information called for is desired by the Survey Office and by University College. Some of it will be a matter of opinion and of estimates; however, it is hoped that the data thus made available may be made effectively helpful in further guiding the work and policy of the University. Please give the questionnaire your sympathetic attention. It should be returned to this office no later than February 3.

C. F. HUTH, Dean

Part I. Opinion concerning quality of work.- We should like to have your frank opinion concerning the work done by University College students. You may use the questions below as a means of expressing your opinion or you may express your opinion in a brief paragraph.

1. As a group, do University College students do as high quality of work as campus students do?
2. Do you feel that they are working below their capacity because most of them have regular employment besides their college work? _____
3. Is there a tendency for the BEST students to do better or poorer work than the BEST students do on campus? _____
4. Is there a tendency for the POOREST students to do better or poorer work than the POOREST students do on campus? _____
5. Should admission requirements for University College classes be as strict as they are for campus classes: a) For regular classified students? _____
   b) For unclassified students? _____
6. Do you object to having students in class who are not seeking credit? _____
7. Due to the fact that most University College students are professionally or otherwise employed do their studies have additional value for them which work on campus would not have?
   If so, what are these values? _____

_____

8. What has been the trend in regard to the quality of work done by University College students in the last five years--or that part of the last five years with which you are acquainted:
   a) to become better? _____
   b) to be about the same? _____
   c) to become poorer? _____
   If your answer is "b" or "c," please state what you think can be done to improve the quality _____

_____

9. Is there a field for University College work regardless of whether or not the quality is up to University level? Please explain _____
10. Please list the outside activities in which you are engaged, such as writing a book, doing independent research, teaching, tutoring, editing a journal other than one sponsored by the university, etc. _____

_____

Signed _____

Part II. Estimated values, in UNITS OF TIME AND ENERGY, of various types of work.- As a part of the University Survey we hope to secure a measure of the university load of faculty members who are teaching in University College and who give downtown public lectures. For this purpose the Survey Office and University College have prepared the appended blank. It lists various types of work which require varying amounts of time and energy. Will you please give your sympathetic cooperation in furnishing the information called for.

In answering the questions will you please assume that the value of the time and energy required to organize and teach a NEW course on the campus, one which has not been taught by you or by a colleague, on the junior-college level is 100. Using this unit as a guide will you then please indicate the value of each type of work you are now doing or have recently done. If there is some type of work which you are not performing now or have not performed recently, do not make any estimate of its value. That is, if you have never taught three sections of the same course concurrently, omit No. 13. If you have never taught a NEW course, one which has never been taught before by you or by a colleague, on the senior-college level, omit the blanks in Nos. 3 and 9.

For example: assume that organizing and teaching a NEW course on the campus on the junior-college level represents 100 units of time and energy. Organizing and teaching an old course on the campus on the senior-college level might then be considered worth 90 units; teaching the same course downtown, but not the same quarter, 95 or 80. Organizing a NEW course and teaching it downtown on the graduate level might be worth 130. The committee work which you do in addition to a full load (2 majors or the equivalent) might be worth 10 or 30 units. The figures given here are merely illustrative and may be much higher or lower than your own estimates.

In making the estimates for the different types of teaching, consider the time and energy required in organizing new courses and the time and energy required to re-organize old courses, as well as the time and energy required in teaching them. Time and energy spent in conference with students of your classes should be included as a part of the teaching load for these classes. Note that work in connection with dissertations is considered separately.

The remainder of Part II is the same as that of Part II in Section A, pages 167-69.

C. Number of Estimates Made on the Mean Value of Each Type of Activity Performed and the Mean Value of Each Type of Activity

	Type of work	No. of estimates	Average values	P.E. of means
	Class Teaching			
1J*	Teaching an OLD course on the Quadrangles	71	70	1.4
2J	Teaching a course on the Quadrangles which is NEW to you but which has been taught by a colleague and for which outlines or other material are at your disposal	45	86	1.2
3J	Teaching a NEW course on the Quadrangles, which has not been taught by you or by a colleague	-	100	.0
4J	Teaching another section of the same OLD course (No. 1) during the same quarter on the Quadrangles	43	57	2.2
5J	Teaching another section of the same NEW course (to you) (No. 2) during the same quarter on the Quadrangles	26	55	2.1
6J	Teaching another section of the same NEW course (No. 3) during the same quarter on the Quadrangles	26	66	2.4
7J	Teaching an OLD course downtown (i.e., at University College)	50	76	2.6
8J	Teaching a course, which is new to you, downtown, but which has been taught by a colleague (No.2)	30	86	1.9
9J	Teaching a NEW course downtown, which has not been taught by you or by a colleague	31	104	1.3
10J	Teaching another section of the same OLD course (No. 1) during the same quarter downtown	33	61	2.7
11J	Teaching another section of the same NEW course (No. 2) (new to you) during the same quarter downtown	25	63	2.7

*J = Junior-College course.

	Type of work	No. of estimates	Average values	P.E. of means
12J	Teaching another section of the same NEW course (No. 3) during the same quarter downtown	17	68	3.1
13J	Teaching three sections of the same OLD course concurrently, two on the Quadrangles, one downtown--value of each	20	60	3.5
1S[1]	Teaching an OLD course on the Quadrangles	66	79	1.4
2S	Teaching a course on the Quadrangles which is NEW to you but which has been taught by a colleague and for which outlines or other material are at your disposal	36	92	1.6
3S	Teaching a NEW course on the Quadrangles which has not been taught by you or by a colleague	52	126	3.5
4S	Teaching another section of the same OLD course (No. 1) during the same quarter on the Quadrangles	24	62	3.0
5S	Teaching another section of the same NEW course (to you) (No.2) during the same quarter on the Quadrangles	16	61	2.7
6S	Teaching another section of the same NEW course (No. 3) during the same quarter on the Quadrangles	18	91	4.4
7S	Teaching an OLD course downtown (i.e., at University College)	56	80	2.5
8S	Teaching a course,which is new to you downtown, but which has been taught by a colleague (No.2)	27	94	3.6
9S	Teaching a NEW course downtown, which has not been taught by you or by a colleague	34	115	2.4
10S	Teaching another section of the same OLD course (No. 1) during the same quarter downtown	29	74	3.9
11S	Teaching another section of the same NEW course (No. 2, new to you) during the same quarter downtown	13	65	4.2
12S	Teaching another section of the same NEW course (No. 3) during the same quarter downtown	11	81	5.9
13S	Teaching three sections of the same OLD course concurrently, two on the Quadrangles, one downtown--value of each	5	61	6.0
1G[2]	Teaching an OLD course on the Quadrangles	79	89	2.0

[1] S = Senior-College course.
[2] G = Graduate course.

	Type of work	No. of estimates	Average values	P.E. of means
2G	Teaching a course on the Quadrangles which is NEW to you but which has been taught by a colleague and for which outlines or other material are at your disposal	39	113	5.9
3G	Teaching a NEW course on the Quadrangles, which has not been taught by you or by a colleague	65	149	5.4
4G	Teaching another section of the same OLD course (No. 1) during the same quarter on the Quadrangles	20	59	3.6
5G	Teaching another section of the same NEW course (to you) (No.2) during the same quarter on the Quadrangles	17	64	4.4
6G	Teaching another section of the same NEW course (No. 3) during the same quarter on the Quadrangles	16	78	5.4
7G	Teaching an OLD course downtown (i.e., at University College)	38	85	2.3
8G	Teaching a course, which is new to you, downtown, but which has been taught by a colleague (No.2)	22	102	2.9
9G	Teaching a NEW course downtown, which has not been taught by you or by a colleague	25	127	4.0
10G	Teaching another section of the same OLD course (No. 1) during the same quarter downtown	21	70	3.4
11G	Teaching another section of the same NEW course (No. 2, new to you) during the same quarter downtown	13	74	4.8
12G	Teaching another section of the same NEW course (No. 3) during the same quarter downtown	11	90	9.4
13G	Teaching three sections of the same OLD course concurrently, two on the Quadrangles, one downtown--value of each	8	44	4.4
	Work other than Class Teaching on the Quadrangles			
14	Administrative work for which release from one major has been granted	21	110	12.3
15	Research work for which release from one major has been granted	21	142	14.5
16	Research work, other than that in connection with a course which you are now teaching, without release from one major	65	116	7.2
17	Committee work in addition to a full load (2 majors or the equivalent) during one quarter	48	23	3.1

	Type of work	No. of estimates	Average values	P.E. of means
18	The writing of personal recommendations as well as those submitted for filing in the placement office DURING ONE QUARTER	70	64	.6
19	Work in connection with dissertations (One Master's	68	22	1.6
	(One Ph. D.	52	38	3.6
20	Consultative work or reading manuscripts for the University Press during one quarter	19	30	8.9
21	All of your work during one quarter on some magazine or journal sponsored by the University for which no additional salary is received	23	32	5.4
22	Preparing and giving one "downtown public lecture"	24	19	2.9
23	Outlining the lessons for one correspondence-study course (Major)	37	80	5.0
24	Grading the papers for one student in a correspondence-study course (Major)	54	24	4.6
25	Traveling to and from the University College while teaching one major	66	17	1.2

D. University College Supplementary Information Blank

The following Supplementary Information Blank was submitted to the students who were registered in University College during the Winter Quarter of 1930.

THE UNIVERSITY OF CHICAGO

UNIVERSITY COLLEGE
Office of the Dean

Supplementary Information Blank

1. Name _____ 2. Sex: 1. Man ____ 2. Woman ____

3. Your present address--
where you are living NOW _____

4. Your employment address _____

5. Do you do more work for a major of credit if the course extends over two quarters than if it extends over one? 1. Yes ____ 2. No ____

6. Underline the term that indicates your classification in the University 1. Unclassified 2. Junior College 3. Senior College 4. Graduate

7. Put a cross (x) in the appropriate square to indicate the age group to which you belong according to your last birthday.

11	0	1	2	3	4	5	6	7	8	9
	16-20	21-25	26-30	31-35	36-40	41-45	46-50	51-55	56-60	Over 60

8. How many hours per day do you spend at the place of your employment? Indicate by placing a cross (x) in the appropriate square.

0	1	2	3	4	5	6	7	8
	1-4.9	5-5.9	6-6.9	7-7.9	8-8.9	9-9.9	10-10.9	Over 11

9. How many hours per day do you spend in going to and from your place of employment? Indicate with a cross (x).

0	1	2	3	4	5	6
	0-.5	.6-1.0	1.1-1.5	1.6-2.0	2.1-2.5	Over 2.5

10. How many hours do you spend in going to and from your University College class each class day? Indicate with a cross (x).

0	1	2	3	4	5	6
	0-.5	.6-1.0	1.1-1.5	1.6-2.0	2.1-2.5	Over 2.5

11. Please indicate the number of miles between where you are living NOW and the Downtown University College Building by placing a cross (x) in the appropriate square if you go from home to your college class.

0	1	2	3	4	5	6
	0-5	6-10	11-15	16-25	26-50	Over 50

12. Please indicate the number of miles between where you are working and the Downtown University College Building by placing a cross (x) in the appropriate square if you go from your employment to the class.

0	1	2	3	4	5	6
	0-5	6-10	11-15	16-25	26-50	Over 50

13. Would you take more courses in University College if the transportation question did not have to be considered? 1. Yes____ 2. No ____

14. What was the enrolment, at the time of your graduation, in the high school from which you were graduated? Indicate with a cross (x).

1	2	3	4	5	6	7
0-49	50-99	100-199	200-299	300-499	500-999	1000 up

15. What academic degrees have you received? Indicate by a cross.

	0	1	2	3	4	5	6	7	8	9
Bachelor degrees	A.B.	B.S.	Ph.B.	B.D.	LL.B.	B. Arch	B. B.A.	B.M		
Higher degrees	Ph.D.	M.D.	J.S.D.	LL.D.	M.A.	M.S.	M. F.A.	M. B.A.		

16. How much time, in years, have you spent in a college or university, or a technical school of college or university grade? Indicate by a cross.

0	1	2	3	4	5	6	7	8	9
0-2.00	2.1-3.00	3.1-4.00	4.1-4.25	4.26-4.50	4.6-4.75	4.76-5.00	5.1-5.25	5.26-5.50	5.6-5.75

17. Please state briefly your experience--what you have been doing during the last ten years. _____

_____

_____

18. Are you taking the course for credit? 1. Yes____ 2. No ____

19. If your answer to No. 18 is NO, please state why you are taking it. _____

_____

20. If you are taking the course for credit, please indicate toward what degree by placing a cross in the appropriate square.

	0	1	2	3	4	5	6	7	8	9
Bachelor degrees	A.B.	B.S.	Ph.B.	B.D.	LL.B.	B. Arch	B. B.A.	B.M.		

	0	1	2	3	4	5	6	7	8	9
Higher degrees	Ph.D.	M.D.	J.S.D.	LL.D	M.A.	M.S.	M. F.A.	M. B.A.		

21. How many majors (2 minors equal one major) of credit have you received in University College toward a Bachelor's degree? Indicate with a cross in the appropriate square.

12	11	0	1	2	3	4	5	6	7	8	9
.5	1	1.5-2.0	2.5-3.0	3.5-4.0	4.5-5.0	5.5-6.0	6.5-7.0	7.5-8.0	8.5-9.0	9.5-10.0	Over 10

22. How many majors of credit have you received in University College toward a higher degree? Indicate with a cross.

12	11	0	1	2	3	4	5	6	7	8	9
.5	1	1.5-2.0	2.5-3.0	3.5-4.0	4.5-5.0	5.5-6.0	6.5-7.0	7.5-8.0	8.5-9.0	9.5-10.0	Over 10

23.

Do not mark here	0	1	2	3	4	5	6	7	8	9

24. 1._____ 2. _____ 3. _____ 4. _____ 5. _____ 6. _____

25. Check the kind of high school from which you were graduated. If you were graduated from a Chicago high school, give the name

1. Public high school outside Chicago ___
2. Private high school or academy _____
3. Chicago high school _____
   Name _____
4. Did not graduate from high school ___

26. Please give the course or courses in which you are enrolled in University College.

	Department	Course Number	Course Name
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____

27. If you are a graduate of a

1. Private junior college, normal college, or university, give--

Name _____ Date _____

2. State college or university, give--

Name _____ Date _____

3. State teachers college or normal school, give--

Name _____ Date _____

4. Foreign university or technical school of university grade, give--

Name _____ Date _____

28. Are you now also registered for work

1. On the University of Chicago campus? _____

2. At some other school and if so, where? _____

3. By tutoring? _____

4. By correspondence at the University of Chicago? _____

29. If your answer to No. 28 was YES, list the courses:

1. _____

2. _____

3. _____

30. Where do you expect to receive your degree? 1. In the University of Chicago? ____
If not Chicago, where? 2. _____

31. OCCUPATION. Please place a cross (x) in front of the term which best describes your occupation or the kind of work in which you are now engaged. Read through the entire list before marking.

____ 1. Agriculture, forestry, and animal husbandry industries.

____ 2. Extraction of minerals--work of any kind that has to do with mining EXCEPT professionally trained engineers. See 8-16.
____ 3. Building and construction work EXCEPT professionally trained engineers. See 8-16. Clerical work, see 10.
____ 4. Manufacturing and mechanical industries EXCEPT professionally trained engineers. See 8-16. Clerical work, see 10.
____ 5. Transportation service of all kinds EXCEPT professionally trained engineers. See 8-16. Clerical work, see 10.
____ 6. Trade:
    ____ 1. Banks, brokerages, etc. Managerial position, salesman, clerk.
    ____ 2. Retail establishment. Managerial position, salesman, clerk.
    ____ 3. Wholesale establishment. Managerial position, salesman, clerk.
    ____ 4. Undertaking establishments.
____ 7. Public service as fireman, policeman, post-office, city employee.
____ 8. Professional service
    ____ 1. Actor, showman.
    ____ 2. Architect.
    ____ 3. Artist, sculptor.
    ____ 4. Author.
    ____ 5. Editor, reporter.
    ____ 6. Clergyman.
    ____ 7. Dentist.
    ____ 8. Designer, draftsman, inventor.
    ____ 9. Judge, lawyer, justice.
    ____ 10. Librarian.
    ____ 11. Musician.
    ____ 12. Osteopath.
    ____ 13. Photographer.
    ____ 14. Physician.
    ____ 15. School work.
        ____ 1. Teacher in kindergarten to grade four.
        ____ 2. Teacher in grades four to six inclusive.
        ____ 3. Teacher in grades seven to nine inclusive.
        ____ 4. Teacher in grades ten to twelve inclusive.
        ____ 5. Teacher in college or university.
        ____ 6. Principal of an elementary school.
        ____ 7. Principal of a secondary school, junior or senior high school.
        ____ 8. Superintendent of schools.
        ____ 9. Other position. Please state _____
        ____ 10. Student.
    ____ 16. Professionally trained engineers.
        ____ 1. Chemical.
        ____ 2. Civil.
        ____ 3. Electrical
        ____ 4. Mechanical
        ____ 5. Mining.
    ____ 17. Trained nurse.
    ____ 18. Veterinary surgeon.

____19. Other. Please state _____

____ 9. Domestic and personal service--waiter, porter, laundry worker, etc.
___ 10. Clerical work--bookkeeper, accountant, stenographer, etc.
___ 11. Home maker, house keeper, house wife.

E. Determination of the Point Values of the Graduate Letter Grades[1]

One of the first problems that had to be solved before any comparison could be made between the quality of work done in the Home-Study Department and in University College and the quality of work done on the Quadrangles was a determination of the point values of the graduate letter grades, H, P, U, and F. The grades used as a basis for this determination were the graduate grades issued in the Autumn, Winter, and Spring Quarters of 1925-26 and the graduate grades issued in the Winter, Spring, and Autumn Quarters of 1928. The letters used in 1925-26 were A, B, C, D, and F, those used in 1928 were H, P, U, and F. The distributions of grades issued in these two periods were:

1925-26		1928	
Number	Percentage	Number	Percentage
1708 A's	35.6	2079 H's	24.8
2060 B's	43.0	5705 P's	68.1
664 C's	13.9		
82 D's	1.7	126 U's	1.5
31 F's	.6	37 F's	.4
143 N.G.'s	3.0	190 N.G.'s	3.5
103 P.G.'s	2.1	141 P.G.'s	1.7
4791	99.9	8278	100.0

N.G. means no grade, P.G. means provisional grades.

Figure 20 gives the percentage distribution which shows the relationship of the earlier distribution to the later distribution.

The procedure used in determining the values was an adaptation of that illustrated by Professor Holzinger in his discussion of the Normal Probability Curve.[2] The means of the various categories were found and then (3) was added to each value. This gave positive abstract terms which were comparable. The computations follow.

CALCULATION OF THE MEANS FOR THE GRADES ISSUED IN 1925-1926

PG	NG	F	D	C	B	A
.021	.030	.006	.017	.139	.430	.356
z_1	z_2	z_3	z_4	z_5	z_6	z_7	z_8

Ordinate	Area between ordinates	½ Area	Value of ordinate	Value from a 4-place table
z_8	.356	.500	.0000	$\frac{.3727 - .0000}{.356} = \frac{.3727}{.356} = 1.05 + 3 = 4.05$

[1]In collaboration with Mr. Roy W. Bixler.

[2]Karl J. Holzinger, op. cit., pp. 222, 223.

CALCULATION OF THE MEANS FOR THE GRADES ISSUED IN 1925-1926 (CONTINUED)

Ordinate	Area between ordinates	½ Area	Value of ordinate	Value from a 4-place table
z_7		.144	.3727	
	.430			$\frac{.2914 - .3727}{.430} = \frac{-.0813}{.430} = -.19 + 3 = 2.81$
z_6		.286	.2914	
	.139			$\frac{.1416 - .2914}{.139} = \frac{-.1498}{.139} = -1.08 + 3 = 1.92$
z_5		.425	.1416	
	.017			$\frac{.1160 - .1416}{.017} = \frac{-.0256}{.017} = -1.51 + 3 = 1.49$
z_4		.442	.1160	
	.006			$\frac{.1064 - .1160}{.006} = \frac{-.0096}{.006} = -1.60 + 3 = 1.40$
z_3		.448	.1064	
	.030			$\frac{.0525 - .1064}{.030} = \frac{-.0539}{.030} = -1.80 + 3 = 1.20$
z_2		.478	.0525	
	.021			$\frac{.0034 - .0525}{.021} = \frac{-.0491}{.021} = -2.34 + 3 = .66$
z_1		.499	.0034	

CALCULATION OF THE MEANS FOR THE GRADES ISSUED IN 1928

	PG		NG		F		U		P		H	
	.017		.035		.004		.015		.681		.248	
z_1		z_2		z_3		z_4		z_5		z_6		z_7

Ordinate	Area between ordinates	½ Area	Value of ordinate	Value from a 4-place table
z_7		.500	.0000	
	.248			$\frac{.3164 - .0000}{.248} = \frac{.3164}{.248} = 1.28 + 3 = 4.28$
z_6		.252	.3164	
	.681			$\frac{.1357 - .3164}{.681} = \frac{-.1807}{.681} = -.27 + 3 = 2.73$
z_5		.429	.1357	
	.015			$\frac{.1128 - .1357}{.015} = \frac{-.0229}{.015} = -1.53 + 3 = 1.47$
z_4		.444	.1128	
	.004			$\frac{.1064 - .1128}{.004} = \frac{-.0064}{.004} = -1.60 + 3 = 1.40$
z_3		.448	.1064	
	.035			$\frac{.0422 - .1064}{.035} = \frac{-.0642}{.035} = -1.83 + 3 = 1.17$
z_2		.483	.0422	
	.017			$\frac{.0000 - .0422}{.017} = \frac{-.0422}{.017} = -2.48 + 3 = .52$
z_1		.500	.0000	

The abstract values of the various letters were:

A = 4.05	H = 4.28
B = 2.81	P = 2.73
C = 1.92	
D = 1.49	U = 1.47
F = 1.40	F = 1.40
NG = 1.20	NG = 1.17
PG = .66	PG = .52

The point values of the letters of the first group were: A = 6, B = 4, C = 2, D = 0, F = -2, NG = 0, and PG = 0.

An examination of Figure 20 shows that an H is equivalent to or greater than an A; a P is $\frac{.108}{.681}$ of an A plus $\frac{.430}{.681}$ of a B

plus $\frac{.139}{.681}$ of a C; a U is practically equal to a D; and that the F's, NG's, and PG's in one series practically equal the same letters in the other series. Using the abstract values of the letters of the two series and the point values of the letters of the first group, the following computations give the values determined for H, P, U, and F.

$$\frac{4.28}{4.05} \times 6 = 6.34 \qquad \text{or } H = 6.3$$

$$\frac{2.73}{4.05} \times 6 = 4.044 \times \frac{.108}{.681} = .6413$$

$$\frac{2.73}{2.81} \times 4 = 3.886 \times \frac{.430}{.681} = 2.4530$$

$$\frac{2.73}{1.92} \times 2 = 2.843 \times \frac{.139}{.681} = \frac{.5802}{3.6745} \text{ or } P = 3.7$$

The values for U and F were assumed to be 0 and -2 respectively.

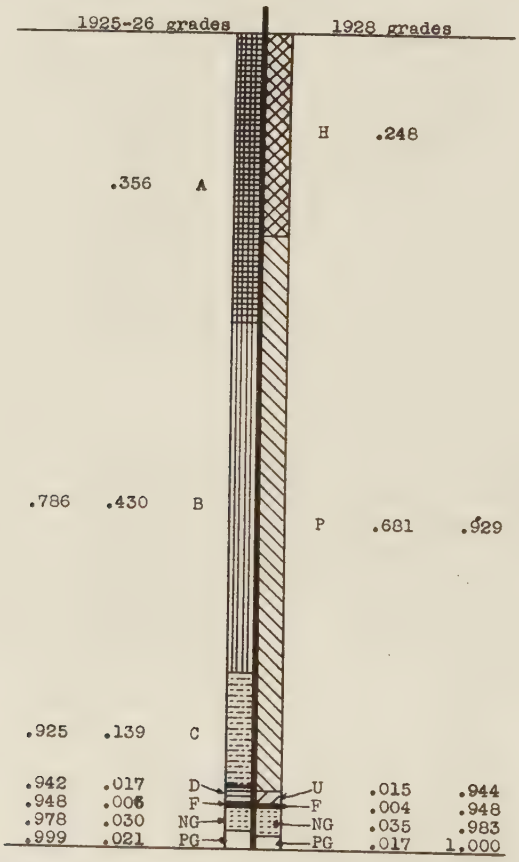

Fig. 20.- Percentage distribution of 1925-26 grades and of 1928 grades issued to graduate students, the percentage of each grade level, and the accumulative percentages.

The following is given as evidence of the validity of the foregoing procedure.

A = .356	x 6	= 2.136	H = .248	x 6.3	= 1.5624
B = .430	x 4	= 1.720	P = .681	x 3.7	= 2.5197
C = .139	x 2	= .278	U = .015	x 0	= 0
D = .017	x 0	= 0	F = .004	x -2	= -.0080
F = .006	x-2	= -.012	NG = .035	x 0	= 0
NG = .030	x 0	= . 0	PG = .017	x 0	= 0
PG = .021	x 0	= 0			
		4.122			4.0741

The total for the values of H, P, U, F, NG, and PG are but .0479 grade point short.

F. Supplementary Tables

Three tables, numbers LXV, LXVI, and LXVII are here presented with the thought that some readers might be interested in the detailed data upon which certain conclusions are based.

Table LXVI should be read as follows: The number of teachers in the Philosophy department who taught on the Quadrangles and who taught only in the Home-Study Department produced, during the years when they did teach in extension, two books, four reviews, and five articles; during the years when they did not teach in extension, they produced no books, reviews, or articles. The remainder of the line is read similarly. The total numbers of productions of each kind by the staff members who taught only in the Home-Study Department are, during the ten years when they taught in extension, 45 books, 182 reviews, and 247 articles. In the years when these same teachers did not teach in Home-Study they produced 45 books, 215 reviews, and 218 articles. The total number of years in which all these staff members taught in Home-Study is 324 and the total number of years in which these same teachers did not teach in Home-Study is 145. The average yearly production, during the years when they did teach in Home-Study, is .14 books, .56 reviews, and .76 articles; the averages, during the years when they did not teach in Home-Study, are .31 books, 1.48 reviews, and 1.5 articles. The other figures are to be read similarly.

G. Form of Card Used in Collecting Data on Scholarly Productivity

Teacher's Name _____ Dept. _____

Years	Taught in: H-S.	U.C.	Rank	Number of: Books	Reviews	Articles	
1919-20							
1920-21							
1921-22							
1922-23							
1923-24							
1924-25							
1925-26							
1926-27							
1927-28							
1928-29							
Total							

TABLE LXV

NUMBER OF EXTENSION ACTIVITIES AND THE INDIVIDUAL LOADS IN UNITS OF TIME AND ENERGY, BASED ON INDIVIDUAL ESTIMATES OF EACH, OF FORTY-SEVEN TEACHERS IN THE WINTER QUARTER OF 1930

Department	Teacher* Number	Academic Rank	Home-Study: Number of Outlines Made	Home-Study: Number of Papers Graded	University College: Number of Lectures Given	University College: Classes Taught: Number	University College: Classes Taught: Level	Load in Units: Quadrangles: Classes	Load in Units: Quadrangles: Other Activities**	Load in Units: Home-Study: Outlines	Load in Units: Home-Study: Papers Graded	Load in Units: University College: Lectures	Load in Units: University College: Classes	Total
Philosophy	1	Prof.	0	0	5	0		250	460	-	-	25	-	735
	3	Asst.P.	0	0	0	1	S7	150	100	-	-	-	75	325
Psychology	3	Asst.P.	1	160	0	½	J7	120	350	68	40	-	30	608
	4	Prof.	0	513	0	0		240	245	-	257	-	-	742
Education	6	Teacher	1	146	0	½	S9	200	0	150	11	-	63	424
	7	Asso.P.	0	194	0	1	G7	200	360	-	121	-	145	826
	8	Prof.	0	332	0	1	G7	200	370	-	249	-	70	889
	9	Prof.	1	713	0	½	G7	180	200	15	357	-	40	792
	10	Prof.	0	294	0	0		180	190	-	37	-	-	407
	11	Prof.	0	0	0	1	G7	200	220	-	-	-	80	500
	12	Prof.	0	434	0	1	G7	160	219	-	54	-	115	548
	13	Prof.	1	667	0	1	G7	275	180	50	75	-	150	730
	14	Asst.P.	0	830	0	0		149	75	-	249	-	-	473
Economics and Commerce and Administration	15	Lecturer	1	205	0	1	J7	249	200	50	26	-	80	605
	17	Asso.P.	0	169	0	0		410	785	-	42	-	-	1237
Political Science	18	Asst.P.	0	34	0	1	J7	190	210	-	21	-	115	536
	19	Asst.P.	0	0	0	1	S7	160	240	-	-	-	75	475
History	22	Asso.P.	0	0	0	1	S7	160	149	-	-	-	125	434
	23	Asso.P.	0	0	0	1	S8	140	12	-	-	-	75	227
	24	Inst.	0	0	0	½	S7	150	32	-	-	-	70	252
	26	Asso.P.	0	0	0	½	S7	150	390	-	-	-	50	590
	27	Asst.P.	0	0	0	1	S7	230	70	-	-	-	90	390
Sociology	28[a]	Prof.	0	40	0	0		260	136	-	2	-	-	398
	29[a]	Prof.	0	0	0	1	S7	175	222	-	-	-	75	472
Home Economics	30	Asst.P.	0	200	0	⅔	G7	260	130	-	250	-	172	812
						1	S7							
Divinity	31	Prof.	0	27	0	0		150	223	-	6	-	-	379
	32	Prof.	0	47	0	0		210	190	-	29	-	-	429
	33	Asso.P.	1	46	0	0		230	110	30	12	-	-	382
Romance Languages	35[a]	Asso.P.	0	868	0	0		150	377	-	426	-	-	953
	37	Asso.P.	0	0	0	1	J7	250	80	-	-	-	100	430
	38	Prof.	0	0	0	1	S7	175	555	-	-	-	100	830
German	39	Inst.	0	385	0	1	J7	100	0	-	72	-	35	207
	40	Asso.P.	0	605	0	1	S7	190	200	-	1510	-	95	1995
	41	Asst.P.	1	148	0	0		190	275	100	370	-	-	935
English	43[a]	Prof.	1	2262	0	⅔	G7	150	74	100	848	-	100	1272
Physics	45	Inst.	0	0	0	2/3	J7	190	292	-	-	-	97	579
						⅔	S10							
	46	Inst.	0	120	0	0		175	40	-	30	-	-	245
Chemistry	47	Asst.P.	0	0	1	0		190	300	-	-	50	-	540
	48	Asso.P.	0	104	0	0		120	90	-	52	-	-	262
Geology	49	Asso.P.	1	84	0	0		300	374	20	42	-	-	736
	50	Prof.	1	23	0	0		40	35	100	3	-	-	178
Botany	51	Asst.P.	0	14	0	0		180	160	-	2	-	-	342
	52	Prof.	0	0	0	1	J7	175	142	-	-	-	85	402
	53	Asso.P.	0	10	0	0		215	215	-	3	-	-	433
	54	Asso.P.	0	0	0	1	J7	180	80	-	-	-	80	340
Zoology	55	Prof.	0	493	0	½	J7	180	170	-	62	-	73	485
Hyg. and Bact.	56	Inst.	0	0	0	1	S7	70	360	-	-	-	100	530
Total			10	10,167	6	26-1/6		8,848	9,887	683	5,258	75	2,560	27,311
Average				335				188	210		175		88	581

*The numbers correspond to those in Table XLVII.

**Activities other than teaching on the Quadrangles, in University College, or in Home-Study.

[a]No individual estimates were given by numbers 29, 35, and 43, for work on master's theses. The mean value, 22, was used.

TABLE LXVI

DISTRIBUTION, ACCORDING TO DEPARTMENTS, OF THE PRODUCTIONS AS LISTED IN THE PRESIDENT'S REPORTS OF THOSE MEMBERS OF THE FACULTY* SECURED FROM DEPARTMENTS THAT OFFERED WORK IN THE HOME-STUDY DEPARTMENT AND IN UNIVERSITY COLLEGE DURING THE TEN YEARS, 1919-20 TO 1928-29

Department	Number of Productions by Extension Teachers Who Taught on the Quadrangles and: In the Home-Study Department in Years When They Taught						In Both the Home-Study Department and University College in Years When They Taught in: Home-Study Dept. Only			Neither			Both			University Coll. Only			In University College in Years When They Taught						Number of Productions by Teachers Who Taught in Neither			Average Yearly Production per Teacher		
	Taught			Did Not Teach															Taught			Did Not Teach								
	B	R	A	B	R	A	B	R	A	B	R	A	B	R	A	B	R	A	B	R	A	B	R	A	B	R	A	B	R	A
Philosophy	2	4	8	0	0	0	1	25	2	2	10	13	0	18	14	0	0	0	0	0	4	4	5	0	0	1	7	.13	.68	.86
Psychology	0	0	0	0	0	0	0	0	14	2	2	21	4	11	45	2	0	6	1	5	17	0	0	0	0	1	7	.13	.28	1.82
Education	0	0	0	0	0	0	4	18	16	3	19	16	43	132	152	11	17	59	21	10	48	17	16	85	7	9	23	.37	.78	1.29
Economics	0	0	0	3	0	1	0	0	1	6	0	5	2	2	4	2	1	4	1	17	18	3	8	24	8	33	45	.22	.54	.91
Com. & Admin.	2	5	14	2	0	0	0	0	34	0	0	1	1	4	12	0	0	3	7	8	16	6	6	12	19	107	106	.22	.78	1.19
Pol. Science	-	-	-	-	-	-	2	6	4	1	0	4	2	5	7	0	4	0	6	30	9	9	18	26	2	56	83	.36	1.95	2.18
History	0	0	0	0	0	0	2	1	1	0	0	0	0	1	6	2	11	7	13	49	34	7	20	18	6	26	18	.18	.65	.50
Art	1	0	0	0	0	1	-	-	-	-	-	-	0	0	0	-	-	-	0	0	1	0	0	0	0	0	0	.02	.00	.05
Soc. & Anth.	0	8	2	6	2	12	5	14	16	0	0	2	7	7	24	0	0	0	3	50	44	1	9	13	0	5	27	.26	1.11	1.63
Home Economics	1	1	3	0	0	0	0	0	0	0	0	0	1	0	3	0	0	0	0	0	7	8	3	40	1	4	8	.07	.05	.39
Divinity	25	114	98	13	12	30	4	23	24	20	30	45	5	28	18	10	0	12	1	24	26	2	2	18	11	29	63	.32	.91	1.16
Com. Philology	0	1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	5	15	.05	.30	.75
Greek	1	0	15	2	109	73	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	8	9	.09	2.66	2.21
Latin	2	9	8	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	1	0	2	2	11	9	7	36	29	.15	.70	.60
Romance Lang.	3	12	16	10	7	48	5	24	8	0	0	1	4	5	3	2	0	0	8	14	19	9	32	20	3	15	12	.20	.49	.57
German	2	2	23	1	3	0	0	3	6	11	2	0	7	0	12	0	0	0	1	12	6	0	3	1	2	4	13	.28	.34	.71
English	0	0	2	2	14	3	3	5	9	2	0	4	6	19	14	6	7	3	3	256	87	1	0	5	28	26	58	.19	1.24	.78
Com. Literature	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	14	4	-	-	-	2	0	2	.21	.41	.18
Mathematics	0	1	15	0	1	7	0	0	0	0	0	3	-	-	-	0	0	0	2	0	3	-	-	-	19	2	76	.20	.04	.99
Astronomy	2	1	14	-	-	-	0	0	2	1	0	1	0	0	0	0	0	2	-	-	-	-	-	-	8	20	215	.12	.23	2.57
Physics	0	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	4	25	1	2	10	7	2	80	.14	.13	1.48
Chemistry	0	0	5	0	0	5	5	0	14	-	-	-	0	0	4	-	-	-	3	1	19	3	3	61	4	4	46	.14	.08	1.47
Geology	2	2	3	2	22	14	2	9	14	-	-	-	0	16	15	-	-	-	1	2	2	-	-	-	10	68	81	.18	1.24	1.34
Geography	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	5	1	6	4	10	12	8	368	.30	.24	5.34
Botany	0	2	2	-	-	-	1	12	10	0	13	5	4	50	39	0	12	6	4	8	17	1	3	4	1	15	13	.12	1.28	1.07
Zoology	0	0	4	0	0	1	-	-	-	-	-	-	11	0	10	-	-	-	0	0	3	3	1	29	7	3	116	.30	.06	2.36
Physiology	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	-	-	-	-	-	-	-	-	-	3	1	162	.06	.02	3.11
Phys. Chem.	0	1	8	0	0	13	-	-	-	-	-	-	-	-	-	-	-	-	0	2	5	0	13	16	0	2	18	.00	.51	1.71
Hyg. & Bact.	0	0	2	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	3	0	15	4	1	47	10	1	120	.20	.01	2.11
Physical Culture	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	0	0	1	0	0	.01	.00	.00
Library Science	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	3	3	5	1	6	1	2	7	1.13	.67	2.00
Soc.Ser.Admin.	2	17	3	4	45	10	-	-	-	-	-	-	-	-	-	-	-	-	0	9	1	3	36	32	6	17	37	.19	1.53	1.03
Total	45	182	247	45	215	218	34	138	175	48	76	121	97	278	382	35	52	102	93	523	436	95	197	486	187	510	1864	679	2191	4031
Total Number of Years	324			145			184			124			325			84			440			431			1246			3303		
Average Yearly Production per Teacher	.14	.56	.76	.31	1.48	1.5	.18	.75	.95	.39	.61	.98	.29	.92	1.17	.42	.62	1.21	.21	1.19	.99	.22	.46	1.13	.15	.41	1.41	.21	.66	1.22

*Includes Professors, Associate Professors, Assistant Professors, Instructors, and Lecturers. Visiting teachers who taught only in the Summer Quarter are not included.

- = No teachers. C = No productions. B = Books, R = Reviews, A = Articles.

TABLE LXVII

SERVICE-LOAD COSTS OF THE ACTIVITIES PERFORMED BY FORTY-SEVEN TEACHERS IN THE WINTER QUARTER OF 1930 BASED ON THE INDIVIDUAL ESTIMATES OF THE VALUE OF EACH ACTIVITY

Teacher Number*	Service-Load Costs of Activities in Winter Quarter					
	On the Quadrangles		In Home-Study		In University College	
	Teaching Classes	Other Activities	Making Outlines	Grading Papers	Giving Lectures	Teaching
1	$635.20	$1168.97	$ -	$ -	$ 63.50	$ -
2	517.50	348.75	-	-	-	258.75
3	312.66	911.85	177.08	104.22	-	78.09
4	738.84	754.15	-	790.92	-	-
6	764.68	.00	569.44	48.81	-	244.05
7	573.60	1032.53	-	347.10	-	416.04
8	513.63	950.10	-	639.41	-	179.66
9	513.74	570.70	42.72	1018.90	-	114.14
10	826.04	871.80	-	169.76	-	-
11	1138.27	1252.09	-	-	-	455.31
12	724.62	991.90	-	244.44	-	520.64
13	888.48	581.64	161.56	242.23	-	484.69
14	543.81	280.68	-	929.74	-	-
15	625.80	503.69	122.10	76.32	-	198.42
17	670.62	1284.18	-	68.80	-	-
18	439.08	485.28	-	48.55	-	265.69
19	527.65	791.63	-	-	-	247.38
22	628.76	585.44	-	-	-	491.13
23	1008.16	84.83	-	-	-	538.34
24	502.80	108.94	-	-	-	226.26
26	646.60	1681.62	-	-	-	215.45
27	899.29	273.74	-	-	-	351.97
28	1356.37	709.44	-	10.38	-	-
29	1025.14	1300.22	-	-	-	439.31
30	457.89	228.94	-	440.30	-	302.87
31	1089.40	1619.51	-	43.49	-	-
32	955.41	864.45	-	131.94	-	-
33	1114.93	533.30	145.36	58.14	-	-
35	297.31	747.23	-	844.32	-	-
37	952.53	304.73	-	-	-	381.07
38	588.48	1866.78	-	-	-	336.40
39	604.25	.00	-	440.60	-	214.00
40	205.17	227.97	-	1732.54	-	113.98
41	198.51	287.83	109.18	397.01	-	-
43	348.06	171.81	232.04	1968.19	-	232.03
45	480.87	738.88	-	-	-	245.41
46	790.80	175.73	-	131.80	-	-
47	417.08	667.34	-	-	107.25	-
48	495.98	371.99	-	214.96	-	-
49	619.93	772.78	41.37	86.85	-	-
50	510.75	446.89	1277.02	38.42	-	-
51	660.02	596.56	-	12.69	-	-
52	1048.20	850.75	-	-	-	509.05
53	941.53	941.53	-	13.27	-	-
54	1049.63	466.52	-	-	-	466.52
55	863.90	817.20	-	303.54	-	350.23
56	242.18	1245.20	-	-	-	345.95
Total	$31,954.15	$32,468.09	$2,877.87	$11,597.64	$170.75	$9,222.83

*The numbers correspond to those in Table XLVII.

H. Some Suggested Problems

The following problems are suggested for further study.

1. How should the entrance requirements be determined--should admission be on the basis of credentials or examinations? If credentials, is the present plan of requiring graduation from a high school satisfactory evidence that the students can do that which is expected of them? If examinations, what should be the content, type, and method of administration?

2. What should be the criteria for determining prerequisites?

3. Does the extension correspondence-study work have any peculiar values above those derived from resident work that would justify enlarging this type of activity?

4. Does the extension class-study work offer any particu-

lar advantages not offered by resident work?

5. What would be the character of courses, which could be offered in extension, that would appeal to
   a. Instructors in other institutions of higher learning?
   b. Professional men and women, physicians, lawyers, etc.?
   c. Business men and women?
   d. The alumni of the University?
   e. Adults who desire a type of continuation education?

6. Would it be possible to organize some science courses now given in laboratories so that they might be given in extension?

7. Is the attendance at lectures on topics of science, health, and business relatively low because of the topics or because of the method of presentation or because of both?

8. Are the lesson outlines and methods of teaching now used by the Home-Study Department the most desirable that may be devised?

9. What differences, if any, should there be in the lesson outlines and methods used in teaching by correspondence the courses on the various levels--junior-college, senior-college, and advanced?

10. If the University should decide to expand the program of non-credit extension service, what would be the best method of teaching in this field?

11. What are the various activities that the University recognizes as those which should legitimately claim the attention of the members of the staff? What is the relative importance of each activity?

12. How much of an instructor's time and energy should be allocated to each of the "other" activities, administration, departmental, committee work, etc., that he is called upon to perform?

13. What is the relation between the demands made on an instructor's energies in one department and the demands made on instructors in other departments?

14. How much of an instructor's time and energy is required to handle the papers of one correspondence-study student-major--
   a. In different courses in the same department?
   b. In courses in different departments? (That is, courses that are comparable in so far as they may be so judged.)

15. Would it be desirable to standardize the loads of the members of the Faculties?

16. From what source or sources should the members of the extension staff be secured?

17. Is the difference between the quality of work done by correspondence and that done in residence great enough to justify setting up procedures or methods on the Quadrangles that would result in a higher quality of residence work? What should these procedures be?

18. Would it be more economical, both of time and money from the standpoint of both students and teachers, to adopt the correspondence-method of teaching some courses on the Quadrangles? For example, courses in composition, some foreign language courses, and others now considered as "tool" courses.

19. What is the intellectual level of extension students?

20. What are the advantages and disadvantages of studying in residence for short periods of time?

21. What are the advantages and disadvantages of continuous study--for periods of more than one quarter?

22. Does the factor of immediacy operate as a motive for study to an extent that would justify an extension program for those who desire to study on a higher level?

23. What fees should be charged extension students? Should non-earning students pay the same that earning students pay? Should students of non-credit courses pay the same that students of credit courses pay?